

*Advertising Reports: A Look  
at Rail and Air Efforts*

# RAILWAY AGE

July 1, 1957



**DARK  
SIDE**

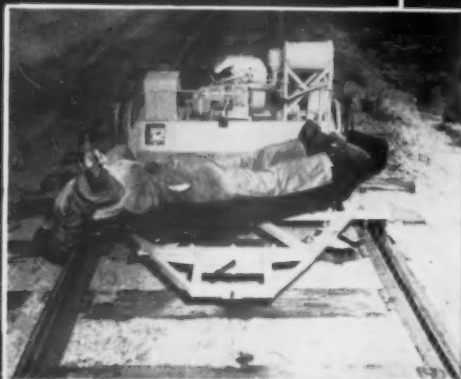
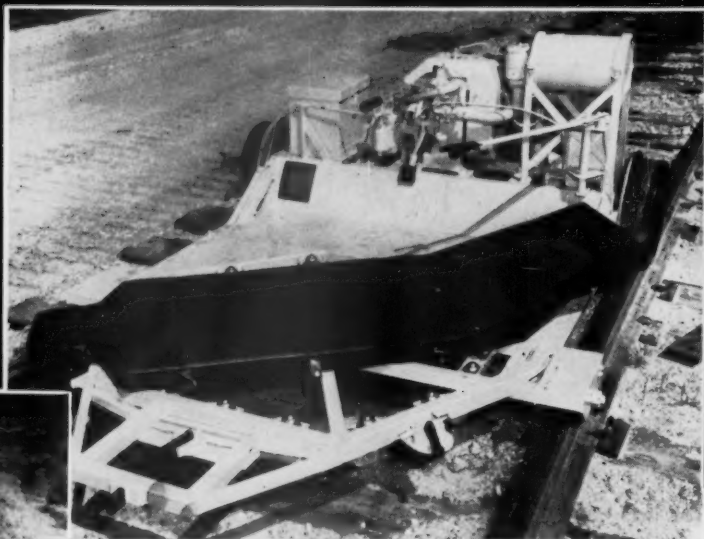
Hot boxes per thousand car-miles ↑ still bad

**BRIGHT  
SIDE**

1957 Report—How lubricators are helping lick

## HOT BOXES p. 32

**NOW!**



Foreman in Sighting Position



Foreman in Travel Position

## The NEW Kershaw FOREMAN'S SIGHT CAR!

Get quicker, more accurate sighting during track reconditioning operations with the Kershaw Foreman's Sight Car.

This handy, self-propelled car cuts fatigue by allowing foremen to remain in prone position for hours at a time during the sighting job. The comfortable, reclining position enables foremen to do a better, more accurate job. The self-propelled feature of the Kershaw Foreman's Sight Car produces speed by moving foremen from rail to rail at a minimum of time and effort.

For details or a free demonstration of this, or other Kershaw equipment, contact one of Kershaw's sales representatives or write Kershaw Manufacturing Company, Montgomery, Ala.

The Complete Line of Kershaw Track Maintenance Equipment

Ballast Regulator, Scarifier and Plow Attachments ★  
Single Wheel-Type Kribber ★ Mocar Crane ★  
Cribber-Adzer ★ Jack-All ★ Track Crane ★ Tie Bed  
Cleaner ★ Track Broom ★ Track Skeletonizer and  
Undercutter ★ Ballast Cleaner and Distributor ★ Spot  
Tamper ★ Two-Wheel Kribber ★ Chemical Spreader  
Car ★ Deadhead Detector ★ Rail Re-Layer.

*Now ... more than ever ...  
Recognize This Symbol of Leadership ...*

**KERSHAW**  
MANUFACTURING CO. INC.

MONTGOMERY



ALABAMA



# FR-16

The high efficiency of the Miner FR-16 Rubber Draft Gear results from years of aggressive research procedure correlated with facts (not theories) learned from service and manufacturing experience.

We provide ample initial compression with 25% of the work accomplished at one-half travel so there will be no slack action, thereby preventing worn coupler carriers, draft keys, or vital car parts. The final pressures are low, ensuring the ultimate in lading protection.



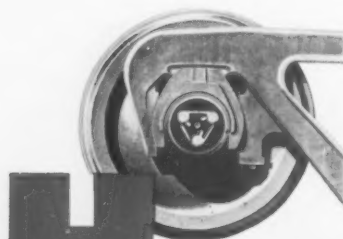
**W. H. MINER, INC.**

**CHICAGO**





Another  contribution  
to railroad  
progress



**HYATT** **HY-ROLL BEARINGS**  
FOR NON-STOP FREIGHT

## Why your freight arrives earlier than ever before

ONE REASON IS PUSH-BUTTON YARDS which save hours in making up trains. As cars roll down the "hump," a finger-flick guides them through a maze of switches to the proper track. Meanwhile radar and electronic computers evaluate "rollability" (even wind resistance)—automatically actuate retarders which slow the wheels, so each car will roll just far enough to couple gently!

ANOTHER BIG REASON IS HYATT HY-ROLL BEARINGS for non-stop freight. The first cost and upkeep of this new simplified design is so low that railroads can now equip whole fleets of freight cars with roller bearings. Hy-Rolls are eliminating hotbox, lubrication and inspection delays—let freight trains roll on passenger schedules. Husky *straight cylindrical rollers* give HYATT Hy-Rolls greater load capacity—make them easier to install and maintain. No wonder the big switch is to HYATT Hy-Rolls—the *best bearing for the long haul!* Hyatt Bearings Division, General Motors Corporation, Harrison, New Jersey.



# RAILWAY AGE The Industry's Newsweekly

July 1, 1957  
Vol. 143 No. 1

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## CONTENTS and Week at a Glance

### Smith would cut costs seven ways .....p.11

Norfolk & Western president tells mechanical officers they have a big job in keeping railroads in competitive fight. Urges freight-car fleet modernization to meet changing needs.

### The travel advertising picture . . .

Here's the story of how rail passenger "ads" shape up:

### Big ad budgets plug air travel .....p.15

Are the railroads losing the travel market by default? Air-line business has soared on lavishly endowed promotional wings.

### What crimps rail ad managers? .....p.16

Skimpy allotments, an intangible product, lack of management recognition and understanding; they all limit the mileage from advertising campaigns.

### Now—Compact control for CTC .....p.22

A novel nerve center for its two-track Elkhart-Toledo operation has been devised on the New York Central. The track diagram is mounted apart from the control console.

### How Are They Doing — on the T&NO? .....p.25

The emphasis is on opportunity on this arm of the Southern Pacific. From some of the top T&NO officers: a capsule report on "what's on the fire."

### Lube pads — Fruitful, but not cure-alls .....p.32

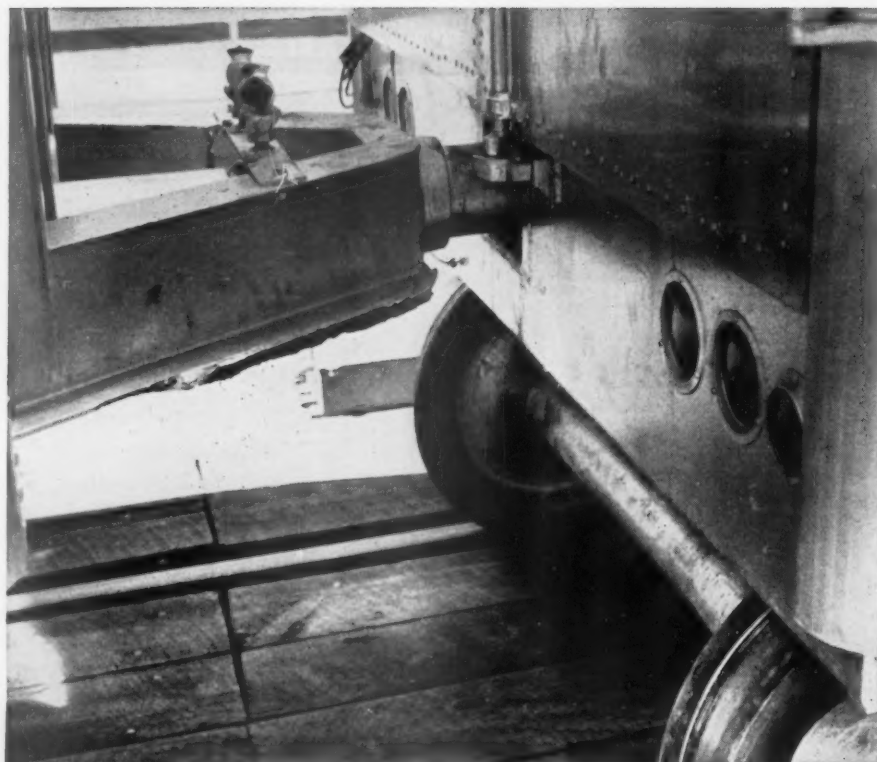
Chapter and verse on the Norfolk & Western's experiments and experience with lubricating devices—as reported by C. E. Pond to the mechanical division.

### How to build an office in a hurry .....p.36

Here's the way Seaboard engineers put up a big, \$500,000 air conditioned office at Jacksonville—in 10 months. A railroad construction first for the SAL—the "lift slab" technique.

Yoloy "E" high strength-low alloy steel provides required strength with less weight to the Railvan's underframing. Coupled view is shown at right.

C & O's new Railvans shown below — with combination highway and railroad wheels mounted on a single spring suspension system — operate either on the highway or railroad tracks.



## C & O USES YOLOY "E" IN "FIRST" RAILVAN

Chesapeake and Ohio's new Railvan utilizes truck trailers that operate either as long trains on railroad tracks or as single units on highways. Such equipment employs a unique combination of railroad and highway wheels mounted on a single spring suspension system.

Hot Rolled Yoloy "E" Sheets and Plates—fabricated by Binkley Manufacturing Co. and Visioneering Company of Cleveland—form the rugged

underframe required for railroad rolling stock. The tubular center sill was produced from 5½" A.P.I. Drill Pipe.

Youngstown's family of Yoloy steels are produced to meet a wide range of applications, where high strength and corrosion resistance are of prime importance. Call us today for a Youngstown Service Engineer to discuss your problem. Free Yoloy literature is available.



Write for these free pamphlets in The Yoloy Family series:

**YOLOY "E"**  
High Strength Low Alloy Steel—standard applications

**YOLOY**  
High Strength Low Alloy Steel—special applications

**YOLOY "S"**  
Higher Strength Steel for increased service life

**YOLOY "C"**  
Corrosion Resistant Grade for deep forming

**YOLOY PIPE**  
Continuous Weld for corrosion resistant applications

### THE YOUNGSTOWN SHEET AND TUBE COMPANY

*Manufacturers of Carbon, Alloy and Yoloy Steel*

General Offices - Youngstown 1, Ohio

District Sales Offices in Principal Cities

# RAILWAY AGE The Industry's Newsweekly

## Current Statistics

|   |                 |
|---|-----------------|
| Operating revenues, four months           |                 |
| 1957 .....                                | \$3,459,398,550 |
| 1956 .....                                | 3,411,490,931   |
| Operating expenses, four months           |                 |
| 1957 .....                                | \$2,711,046,036 |
| 1956 .....                                | 2,650,434,696   |
| Taxes, four months                        |                 |
| 1957 .....                                | \$363,854,120   |
| 1956 .....                                | 361,667,867     |
| Net railway operating income, four months |                 |
| 1957 .....                                | \$295,474,543   |
| 1956 .....                                | 313,697,804     |
| Net income estimated, four months         |                 |
| 1957 .....                                | \$221,000,000   |
| 1956 .....                                | 237,000,000     |
| Average price 20 railroad stocks          |                 |
| June 25, 1957 .....                       | 90.63           |
| June 26, 1956 .....                       | 102.94          |
| Carloadings revenue freight               |                 |
| Twenty-four weeks, 1957 ..                | 16,362,397      |
| Twenty-four weeks, 1956 ..                | 17,374,175      |
| Average daily freight car surplus         |                 |
| Wk. ended June 22, 1957 ..                | 24,596          |
| Wk. ended June 23, 1956 ..                | 3,524           |
| Average daily freight car shortage        |                 |
| Wk. ended June 22, 1957 ..                | 3,134           |
| Wk. ended June 23, 1956 ..                | 9,858           |
| Freight cars on order                     |                 |
| June 1, 1957 .....                        | 97,006          |
| June 1, 1956 .....                        | 133,072         |
| Freight cars delivered                    |                 |
| Five months, 1957 .....                   | 43,034          |
| Five months, 1956 .....                   | 27,639          |
| Average number railroad employees         |                 |
| Mid-May 1957 .....                        | 1,004,427       |
| Mid-May 1956 .....                        | 1,063,387       |

### ADVERTISING SALES DEPARTMENT

Duane C. Salisbury, vice-president, director of sales

New York 7, N.Y., 30 Church st., WO-4-3060  
J. S. Vreeland, vice-president, F. T. Baker,  
W. E. Glasby, J. C. Lyddy

Chicago 3, Ill., 79 W. Monroe st., RA-6-0794  
J. R. Thompson, vice-president, J. W. Crosslett, J. D. Dolan, W. J. Galenby  
Cleveland 13, Ohio, Terminal Tower,  
MA-1-4455, H. H. Melville, vice-president  
C. J. Fisher, H. M. Blunt

Atlanta 9, Ga., 22 Eighth st., N.E.,  
J. S. Crane

Dallas 19, Tex., 3908 Lemmon ave.,  
Lakeside 2322, Joseph Sanders

Los Angeles 17, Cal., 1151 W. Sixth st.,  
MA-6-0553, Fred Klaner, Jr., B. J. Erickson

Portland 5, Ore., 1220 S.W. Morrison,  
Ca-7-4993, L. B. Canaway

San Francisco 4, Cal., 244 California st.,  
GA-1-7004, Lewis Vogler

London E. C., 2, Eng., 48 London Wall  
Sibley-Field Publishing Co., Ltd.

Frankfort am Main (16), West Germany,  
Wittelsbacher Allee 60

Georg J. Linder  
Continental European Representative

SUBSCRIPTION TO RAILROAD EMPLOYEES ONLY  
IN U.S., U.S. POSSESSIONS, CANADA AND MEX-  
ICO, \$4 ONE YEAR, \$6 TWO YEARS, PAYABLE  
IN ADVANCE AND POSTAGE PAID TO RAIL-  
ROAD EMPLOYEES ELSEWHERE IN THE WEST-  
ERN HEMISPHERE, \$10 A YEAR; IN OTHER  
COUNTRIES, \$15 A YEAR—TWO-YEAR SUBSCRIP-  
TIONS DOUBLE ONE-YEAR RATE. SINGLE COP-  
IES 50c. EXCEPT SPECIAL ISSUES. CONCERNING  
SUBSCRIPTIONS WRITE R. C. VAN NESS, CIRCUL-  
ATION DIRECTOR, 30 CHURCH ST., NEW YORK 7.

## Week at a Glance CONTINUED

### Public must prop up commuter service .....p.39

Whether it's by tax relief or subsidy, the railroads need aid from outside sources, Pennsylvania, New Haven and New York Central spokesmen tell ICC examiner.

### Action Page — Not subsidy, but indemnity.....p.50

Let's not have the railroads labelled with "the name but not the game." What they want is to eliminate subsidies they themselves pay in providing red-ink services.

## SHORT AND SIGNIFICANT

### Atlantic City meetings planned . . .

Plans are being discussed for simultaneous meetings of the AAR Mechanical Division; the Electrical Section, Mechanical and Engineering Divisions; and the Purchases and Stores Division, AAR, at Atlantic City in June 1959. Coincident with the meetings would be exhibits of mechanical and other products under the sponsorship of the Railway Supply Manufacturers' Association. It is also planned to hold a meeting of the AAR board of directors at the same time and place. The plans are still in the making and no definite dates have been established.

### A 24.7% drop in net working capital . . .

was reported by Class I line-haul railroads for the 12 months ended March 31. Last March 31's \$581 million compared with \$772 million a year earlier. These net figures represent excesses of current assets, less materials and supplies, over current liabilities.

### F. H. Einwaechter, B&O . . .

in presenting the Locomotive Committee report at the AAR Mechanical Division meeting in Chicago, said that the coal-fired gas-turbine operation results "are encouraging," that "engineering and other work is being progressed between a builder and a western railroad and that a locomotive should be ready in two years."

### Charges for loading devices . . .

for hauling automobile parts are getting critical and controversial discussion in Eastern territory. The subject is docketed for a public hearing in Detroit early in July.



# *Forecast: Steel production to*



## **Can your diesels keep pace**

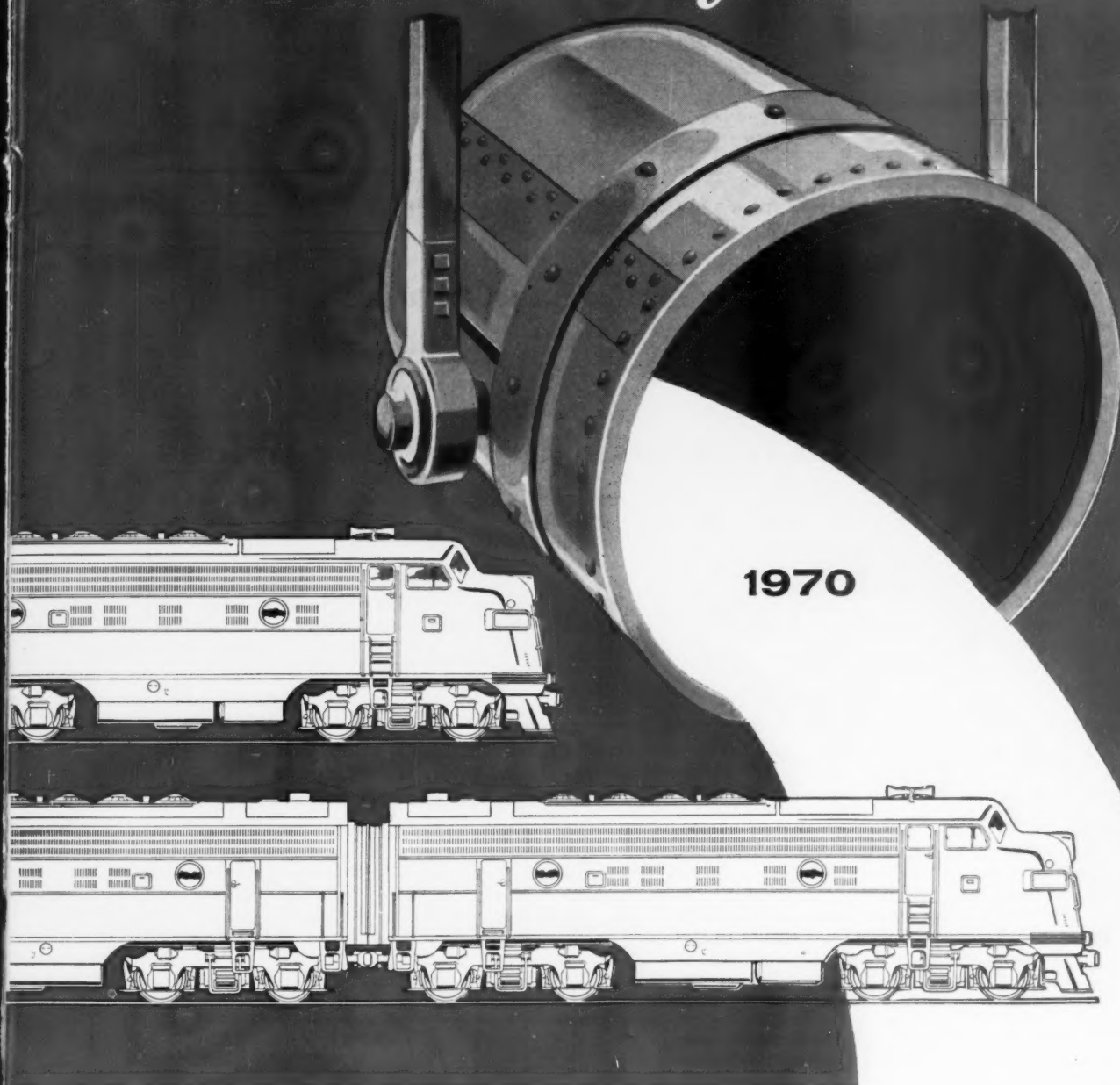
Anticipating the growth years ahead, many railroads are planning motive power requirements today for increased traffic not only in steel, but aluminum, cement, chemicals, foodstuffs and most other basic products—all expected to place heavy demands on tomorrow's rail facilities.

Their reasoning is sound: plans made now will avoid costly delays later—provide

power to match increases as they occur. Moreover, by maintaining a realistic power level, these roads will avail themselves of every opportunity to grow.

To help railroads realize this growth potential, Electro-Motive is expanding manufacturing facilities at La Grange over forty per cent. More than ever before we are prepared to plan with you realistic pro-

*increase 50% by 1970\**



## with the job ahead?

grams of power acquisition to give you power as you need it.

Thus, whether you plan new locomotives or modernization of older units, what better way to keep pace with the job ahead than through modern, dependable, economical General Motors Diesel locomotives.

\* Increasing demand for steel in almost every product and industry is expected to boost production 50% over its present level by 1970.



**ELECTRO-MOTIVE DIVISION  
GENERAL MOTORS**

*La Grange, Illinois • Home of the Diesel locomotive  
In Canada: General Motors Diesel, Ltd., London, Ontario*

## Check list for a customer:

to measure the fairness of supplier prices

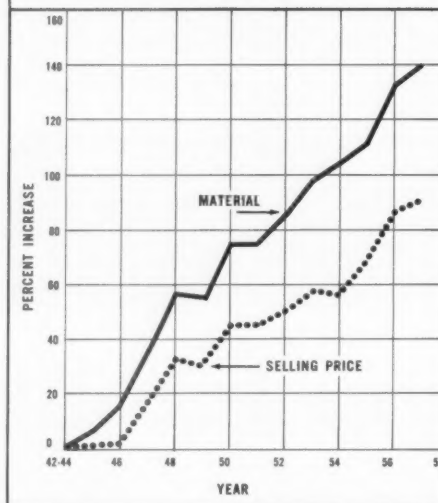


The graph on the right tells it best. From the base years of 1942-1944 to 1957, the cost of a car set of materials for Roof and Steel Ends has risen 140%. But our selling price is up only 90%.

This is the measure of a fair price. Modernization and mechanization of plant facilities—constant attention to cost problems and the reduction of overhead have kept our prices in line. Such effort to maintain fair prices reflects a supplier's responsibility.

Next month's topic will be "delivery". You are cordially invited.

Comparison of Increases in Material Costs and Standard Railway Selling Price of a Car Set of Roof and Steel Ends—1942-1957



## STANDARD RAILWAY EQUIPMENT MANUFACTURING COMPANY

General Office: 4527 Columbia Ave., Hammond, Ind. • New York • Chicago • St. Paul • San Francisco  
Standard Railway Equipment Manufacturing Company, (Canada) Ltd. Sun Life Building, Montreal





# Smith Would Cut Costs 7 Ways

N&W president puts mechanical officers in front rank of railroad battle to stay competitive; urges "prompt and vigorous" action to keep freight-car fleet in top shape for changing needs.

A seven-ply cost-cutting, capacity-building job was assigned to railroad mechanical officers last week by Norfolk & Western President R. H. Smith.

He told the AAR's Mechanical Division meeting at Chicago that railroads must prepare for an increasingly bigger transport task by developing:

- Improved journal lubrication;
- Better draft gears and underframes;
- More efficient air brake maintenance;
- Ways to minimize minor repairs;
- Time savings in car upgrading;
- Common design cars for similar uses;
- Better, more dependable locomotive performance.

Anticipating "tremendous" productive growth in the next 20 years, Mr. Smith said "we cannot meet the challenge of an increasing volume of traffic simply by adding to the freight-car pool cars of present design. . . . We must have better cars in 1975. . . . We ought to know within the next few years just what we are going to do to eliminate some of the undesirable features and component parts of present day cars. And if we don't do that promptly and vigorously, we may be too late."

What the shipper wants today, Mr. Smith went on, "is not a pleasant, liberal settlement for a damaged shipment, but prompt, on-time delivery of his shipment in good condition."

Train delays and damage in derailments caused by hot boxes, and damage from other causes, cost railroads much in good will and in defection of customers to other transport modes, Mr. Smith declared.

But, "in spite of all the research work done in the past five years," Mr. Smith said, "there has been little reduction in hot boxes. In 1951, the average car mileage per hot box . . . was 172,703, while in 1956 it had improved only to 209,479."

Figuring a minimum cost of \$250 per hot box, Mr. Smith estimated that "the total cost of hot boxes to American railroads during 1956 was more than \$42 million."

New devices used on the Norfolk & Western in the past year, Mr. Smith reported, had upped its "fair, or even good" hot box record by 150% in miles per hot box. He predicted further research with such devices would prove worthwhile.

Improvements in draft gears and correct evaluation with cost analyses of what kind of gears and cushion underframes are needed for different commodities were also recommended by the N&W chief executive.

"Now it does not appear desirable or sensible for individual railroads to attempt to find the answers for all of these questions. It would appear reasonable though that this can be done more thoroughly and more economically by the research laboratory of your division working with individual railroads in securing service performance to supplement laboratory tests.

"And it is of the utmost importance that these problems be solved as quickly as possible in order that the many freight cars which will be built within the next 10 or 15 years may

offer more protection to the handling of various commodities."

In support of this, Mr. Smith pointed to the \$114-million bill for freight loss and damage paid by railroads in 1956—"10% of all the railroads' net operating income."

Turning to car utilization, Mr. Smith said too much time is lost by too frequent shopping for minor repairs, inadequate maintenance of air brake systems, and for upgrading cars.

"Mass transportation," he contended, "doesn't have to be at very high speeds while the car is moving, but the car must be moving a greater part of the time than it is today."

The mechanical department can't control transit or spotting speeds, Mr. Smith conceded. "But it is to a large extent," he contended, "the responsibility of the mechanical departments to reduce delays on the road and to provide the best means for loading and unloading."

With more special-purpose cars likely to be used in the future, Mr. Smith said, attention should be given to car interiors. "It should not be necessary," he maintained, "to start patching the floor and lining of cars so soon after they are built.

"Why not make the construction

## Saving Time—And Money

"The Reader Is Busy" says a sign on the office wall of every Railway Age editor. Write and rewrite. Tighten the copy. Use a more telling photograph. Re-do the headline.

This is the editing tempo at Railway Age — part of our program to give you, week after week, a constantly improved magazine. Every effort is made

to save you time. There are two dimensions to this time-saving. You save time reading. And the ideas you pick up save time on the job.

That's the story behind the new slogan on this week's all-new front cover. Railway Age joins all other Simmons-Boardman publications in adopting the TIME-SAVER idea.



### M&StL Gets Pullman-Standard's 10,000th PS-2

A. W. Schroeder (center), president of the Minneapolis & St. Louis, was on hand personally to accept the 10,000th standardized PS-2 covered hopper car turned out by Pullman-Standard Car Manufacturing Company's Butler, Pa., plant. With Mr. Schroeder are J. W. Scallan (left),

vice-president and general manager of Pullman-Standard; and Harry S. Hagan, works manager at Butler. One track in Pullman-Standard's Butler operation has been continuously occupied building PS-2 hopper cars since the Monon accepted the first standardized car in December 1953.

such that it will last much longer, maybe for the life of the car? And the floor and walls should be such that they are not so easily contaminated; and when they are, such that they can readily be cleaned with a hose."

While recognizing the desirability of having cars available to meet the needs of specific customers, Mr. Smith criticized what he saw as a "tendency for individual railroads to build cars tailored precisely to the idea of their mechanical officers."

To illustrate his point, Mr. Smith called on his familiarity with the movement of coal. Hopper cars meant to haul the same product in equal tonnages, he pointed out, are constructed according to specifications that vary road-to-road by as little as an eighth of an inch in interior width and a sixteenth of an inch in height above rail.

"Now these differences of a fraction of an inch can't make much difference in the effectiveness of the car, but they do make a real difference in the cost of the car. They mean that the different railroads are tailor-making the standard types of cars to suit the particular notion of their own mechanical officers.

"Think how much better it would be if the principal owners of this common type of car, of which there are tremendous numbers in use and tremendous additional numbers needed, could agree on a common design so that the different car manufacturers could build cars of the same size for all their customers. . . . I am glad to say that some of the hopper-car-owning railroads are already getting together to study simple, common sense things like that and thereby reduce their equipment costs."

(Mr. Smith's remarks brought to mind a statement by W. J. Stephens, assistant general sales manager, Bethlehem Steel, during a supplier-purchasing agent panel conducted by the New York Railroad Club. As reported in *Railway Age*, April 29, p. 15, Mr. Stephens lamented this same insistence on different specifications for cars meant to do identical work. He said that down-time cost during change-over intervals was figured at about \$1 a second.)

While devoting most of his talk to freight-car problems, Mr. Smith urged the division not to overlook needed motive power improvements.

"If we are to render better service in 1975, which I think will be re-

quired if we are to stay competitive," he said, "we will need better locomotives than we have today, better and more dependable in performance and with less operating and maintenance costs. The relative costs of the various kinds of fuel may be sharply different in 1975 from what they are now."

(For further word on mechanical division meeting see page 32.)

### Shippers Are Advised to Broaden Forecast Policy

A suggestion that shippers boards expand their carloadings-forecast procedure—and a rather pessimistic prediction for the future of the railroad industry—have been advanced by L. L. Waters, professor of transportation at Indiana University.

Speaking before the Ohio Valley Transportation Advisory Board at Indianapolis, Prof. Waters suggested that the "day may be coming" when shippers may want to make a blanket announcement of how much they have to move and where—possibly estimating the number of railroad cars, barges, ships and trucks needed—and then let rival carriers go out and compete for the traffic.

He pointed out that rail freight traffic represents a steadily declining share of the total transportation picture and cited three factors—the St. Lawrence Seaway, development of the Ohio river and the interstate highway system—"of enormous significance to the trend."

In contrast to other estimates forecasting increases in rail freight tonnage in the next 10 to 15 years, Prof. Waters told the board that in terms of ton-miles, "I am inclined to think railroads will haul about as much in 1970 as they are moving now but that the per cent of intercity freight will continue to decline, though at a slower rate."

### Milwaukee Board Approves Lease of Mineral Rights

The Milwaukee's board of directors has approved a lease of mineral rights in 200 acres of right-of-way and station property in Montana to Richfield Oil Corporation of Los Angeles. Richfield previously had obtained oil and gas exploration rights in a large block of land adjacent to the Milwaukee's tracks.

The lease provides for annual rental over a five-year period. If oil or gas is discovered in any 640-acre tract of which the railroad's property is a part, the lease is extended automatically and the railroad becomes entitled to an acreage pro rata royalty.

# MARKET OUTLOOK THIS WEEK

## Slight Rise in Week's Carloadings

Loadings of revenue freight in the week ended June 22 totaled 746,764 cars, the Association of American Railroads announced on June 27. This was an increase of 639 cars, or 0.1%, compared with the previous week; a decrease of 52,828 cars, or 6.6%, compared with the corresponding week last year; and a decrease of 47,663 cars, or 6.0%, compared with the equivalent 1955 week.

Loadings of revenue freight for the week ended June 15 totaled 746,125 cars; the summary, compiled by the Car Service Division, AAR, follows:

| REVENUE FREIGHT CAR LOADINGS<br>For the week ended Saturday, June 15 |         |         |         |
|--|---------|---------|---------|
| District   | 1957    | 1956    | 1955    |
| Eastern .....  | 116,452 | 125,635 | 125,795 |
| Alleghany ....   | 145,864 | 157,982 | 150,599 |
| Poconos .....  | 67,831  | 66,584  | 62,451  |
| Southern .....   | 120,650 | 128,220 | 124,047 |
| Northwestern ..  | 122,727 | 127,144 | 129,652 |
| Central Western  | 118,773 | 132,448 | 128,392 |
| Southwestern ..  | 53,828  | 63,415  | 59,021  |
| Total Western  |         |         |         |
| Districts .....  | 295,328 | 323,007 | 317,065 |
| Total All Roads  | 746,125 | 801,428 | 779,957 |
| Commodities:   |         |         |         |
| Grain and grain products .....                                       | 47,897  | 62,021  | 53,709  |
| Livestock .....  | 4,944   | 6,576   | 5,598   |
| Coal .....   | 143,622 | 142,992 | 133,589 |
| Coke .....   | 10,757  | 12,852  | 12,407  |
| Forest Products ..   | 42,119  | 47,102  | 48,632  |
| Ore .....  | 89,024  | 89,363  | 80,373  |
| Merchandise i.c.f.   | 53,671  | 59,322  | 66,607  |
| Miscellaneous ..   | 354,091 | 381,200 | 379,042 |
| June 15 .....  | 746,125 | 801,428 | 779,957 |
| June 8 .....   | 733,477 | 787,075 | 781,938 |
| June 1 .....   | 671,785 | 719,209 | 709,351 |
| May 25 .....   | 722,903 | 788,254 | 785,589 |
| May 18 .....   | 722,521 | 778,997 | 769,879 |

Cumulative total,  
24 weeks ... 16,362,397 17,374,175 16,389,826

**IN CANADA.**—Carloadings for the seven-day period ended June 7 totaled 85,827 cars, compared with 132,142 cars for the previous ten-day period, according to the Dominion Bureau of Statistics.

|                    | Revenue Cars Loaded | Total Cars Rec'd from Connections |
|--------------------|---------------------|-----------------------------------|
| Totals for Canada: |                     |                                   |
| June 7, 1957 ..... | 85,327              | 30,737                            |
| June 7, 1956 ..... | 91,703              | 32,280                            |
| Cumulative Totals: |                     |                                   |
| June 7, 1957 ..... | 1,672,897           | 741,867                           |
| June 7, 1956 ..... | 1,795,660           | 781,604                           |

► **Capital Outlays May Reach All-Time High.**—Gross capital expenditures by Class I line-haul railroads in 1957 may exceed the record high of \$1,414 million reported for 1951 (see story, with accompanying table, on p. 41).

## New Equipment

### LOCOMOTIVES

► **Korea.**—Electro-Motive Division has begun deliveries of 29 1,750-hp SD-9 road-switchers for Korean National Railways' U.S.-assisted rehabilitation program; cost \$6,525,000 for locomotives, \$345,000 for spare parts; deliveries expected to be completed in October.

► **510 New Units Installed in First Five Months.**—Class I railroads installed 510 new locomotive units (506 diesel-electrics and four electrics), in this year's first five months, compared with 661 units (all diesel-electrics), in comparable 1956 period, AAR reports; new locomotive units on order June 1 totaled 582 (552 diesel-electrics, 30 gas turbine-electrics), compared with 885 (858 diesel-electrics, 15 gas turbine-electrics, and 12 electrics), on order June 1, 1956.

## Maintenance Expenditures

► **Up 3.2% in April.**—Expenditures by Class I railroads for maintenance of equipment, way and structures in April were up \$9 million, compared with same month last year, according to report of ICC Bureau of Transport Economics and Statistics summarized below:

|                                    | Apr. 1957     | Apr. 1956     | % Increase |
|------------------------------------|---------------|---------------|------------|
| Maintenance of Way & Structures .. | \$122,659,073 | \$118,722,928 | 3.3        |
| Maintenance of Equipment .....     | 164,879,824   | 159,771,708   | 3.2        |
| Totals .....                       | 287,538,897   | 278,494,636   | 3.2        |

## New Facilities

► **Alaska.**—Awarded contract to Motorola, Inc., to build microwave communications system between Anchorage and Portage; the \$272,150 project calls for replacement of wire circuits with 28 microwave voice channels for the 50 rail miles between the two points.

► **Atlantic Coast Line.**—Ordered engineering and signaling apparatus from Union Switch & Signal-Division of Westinghouse Air Brake Company for installation of centralized traffic control on 40 miles of double track between Folkston, Ga., and Jacksonville, Fla.; train movements between the points will be controlled and expedited from 20-ft Type C control machine in district headquarters at Waycross, Ga.

► **Chesapeake & Ohio.**—Ordered equipment from General Railway Signal Company for installation of centralized traffic control, Detroit, Mich., to Plymouth; installation will provide for either direction operation on each track on 17 miles of heavy-traffic double track.





### C&NW Starts Common-Carrier Piggyback Service

Chicago & North Western's initial common-carrier piggyback operation began June 17 with the loading of these two trailers in the road's 40th Street yard, Chicago. About 30 trailers were handled in the first movement under C&NW's agreement with the Illinois-Minnesota Conference of

common-carrier truckers. The new service will provide regular overnight runs between Chicago-Milwaukee and Eau Clair-St. Paul-Minneapolis. Rail-Trailer Company, of Chicago, will handle terminal functions and coordinate trailer movements in connection with the service.

### 1956 Diner Dollars Cost \$1.42

Each dollar collected by railroads for their 1956 diner and buffet services cost an average of \$1.42.

Last year's ratio of diner and buffet revenues to expenses was 141.9. It compared with a 1954 ratio of 140, the equivalent of \$1.40 in expenses for each dollar of revenue. And the expense figures include only direct costs—nothing for transporting dining cars or general overhead.

This was reported by the ICC's Bureau of Transport Economics and Statistics in its "Transport Economics," which also published the ac-

companying table covering 21 roads which had diner and buffet expenses in excess of \$1,000,000.

The range of 1956 ratios is from the New Haven's 102.9 to the Union Pacific's 190.2. Those roads were also in the extreme positions for 1955, when their respective ratios were 104.2 and 182.5.

All Class I roads reported for 1956 diner and buffet revenues of \$68,396,000 and expenses of \$97,069,000, compared, respectively, with 1955 figures of \$67,792,000 and \$94,902,000.

#### DINER AND BUFFET REVENUES

| District, Region and Railway   | 1956<br>Dining & Buffet<br>Revenues | 1955<br>Dining & Buffet<br>Revenues | 1956<br>Dining & Buffet<br>Expenses | 1955<br>Dining & Buffet<br>Expenses | 1956<br>Ratio of<br>Expenses to<br>Revenues (%) | 1955<br>Ratio of<br>Expenses to<br>Revenues (%) |
|--------------------------------|-------------------------------------|-------------------------------------|-------------------------------------|-------------------------------------|---|---|
| <b>EASTERN DISTRICT:</b>       |                                     |                                     |                                     |                                     |   |   |
| New Haven                      | \$3,127                             | \$2,937                             | \$3,219                             | \$3,061                             | 102.9   | 104.2   |
| New York Central               | 8,173                               | 8,088                               | 9,870                               | 9,569                               | 120.8   | 118.3   |
| Baltimore & Ohio               | 2,529                               | 2,495                               | 3,831                               | 3,603                               | 151.5   | 144.4   |
| Pennsylvania                   | 9,352                               | 9,009                               | 11,260                              | 10,775                              | 120.4   | 119.6   |
| <b>POCAHONTAS REGION:</b>      |                                     |                                     |                                     |                                     |   |   |
| Chesapeake & Ohio              | 1,070                               | 1,095                               | 1,609                               | 1,565                               | 150.3   | 142.9   |
| <b>Southern region:</b>        |                                     |                                     |                                     |                                     |   |   |
| Atlantic Coast Line            | 1,996                               | 1,803                               | 2,386                               | 2,208                               | 119.5   | 122.5   |
| Illinois Central               | 1,685                               | 1,730                               | 2,398                               | 2,358                               | 142.3   | 136.3   |
| Louisville & Nashville         | 978                                 | 808                                 | 1,332                               | 1,133                               | 136.1   | 140.2   |
| Seaboard Air Line              | 1,521                               | 1,375                               | 2,189                               | 1,914                               | 143.9   | 139.2   |
| Southern                       | 1,571                               | 1,598                               | 1,998                               | 1,975                               | 127.2   | 123.6   |
| <b>WESTERN DISTRICT:</b>       |                                     |                                     |                                     |                                     |   |   |
| Chicago & No. Western          | 1,298                               | 1,913                               | 1,928                               | 2,930                               | 148.5   | 153.2   |
| CM&StP&P                       | 2,221                               | 1,793                               | 3,747                               | 2,734                               | 168.7   | 152.5   |
| Great Northern                 | 1,531                               | 1,615                               | 2,281                               | 2,713                               | 149.0   | 168.0   |
| Northern Pacific               | 1,228                               | 1,226                               | 1,799                               | 1,710                               | 146.5   | 139.5   |
| AT&SF and affiliated cos.      | 6,500                               | 6,143                               | 10,928                              | 10,208                              | 168.1   | 166.2   |
| CB&Q                           | 2,359                               | 2,251                               | 3,568                               | 3,327                               | 151.3   | 147.8   |
| CR&P                           | 1,703                               | 1,777                               | 2,843                               | 2,867                               | 167.0   | 161.4   |
| Southern Pacific               | 4,604                               | 4,723                               | 6,790                               | 6,831                               | 147.5   | 144.6   |
| Union Pacific and leased lines | 4,166                               | 4,583                               | 7,925                               | 8,362                               | 190.2   | 182.5   |
| Missouri Pacific               | 1,245                               | 1,031                               | 1,476                               | 1,201                               | 118.6   | 116.5   |
| Texas & N. O.                  | 662                                 | 676                                 | 928                                 | 1,017                               | 140.1   | 150.5   |

## Technical Tidings

Selected from July Railway Monthlies

**Largest** railroad-owned car shop in the world—the Pennsylvania's at Hollidaysburg, Pa.—has turned out 1,600 extra-strength box cars. Structural details of this new design, and a description of the production line, are presented in *Railway Locomotives & Cars*.

Now they've developed specialized machinery to facilitate repair work on timber trestles. One machine is a rubber-tired hoist with retractable flanged wheels. Also, there's a set of special hydraulic jacks, operated from a central plant, for jacking up the decks when renewing bent caps. The story is in *Railway Track & Structures*.

Burying cable under streets and tracks can be quite a job, but various methods are discussed in *Railway Signaling & Communications*. The techniques involve pipe pushers, conduit and direct burial.

On their way to the Union Pacific are 25 high-horsepower gas-turbine freight locomotives. The 8,500-hp power plants and electrical transmissions for these new freight haulers are described in *Railway Locomotives & Cars*.

On the New York Rapid Transit System they apply tie plates to ties before they are inserted in track. As related in *Railway Track & Structures*, a small gang of men, working at a special rack, applies the tie plates (and tie pads) at the rate of about 600 ties per week.

Unit tapes for individual waybill information on cars are fed into a tape factory for preparation of a long tape for train consist transmission. How this Chesapeake & Ohio car reporting system operation is different from those on other roads is detailed in *Railway Signaling & Communications*.

Special welded subassemblies for Boston & Maine pulpwood cars have now given the road 30 months of successful service. *Railway Locomotives & Cars* tells how International Steel built the underframes and bulkheads for these cars.

# Big Ad Budgets "Plug" Air Travel

Airlines have jumped ahead in advertising outlays to get business. Outlays for newspaper space last year were up 15.2% over 1955. The current puzzle is whether more rail spending would bring travelers back in volume.

By **FRANK E. SHAFFER**  
Business Editor  
Charleston, W. Va., Daily Mail

Where is the railroad passenger business going?

"To the airlines," has been the layman's common answer since the end of World War II. But advertising men outside of transportation often view the situation differently. Acknowledging the growth of automobile use, they are apt to add this point: "To the airlines—by default."

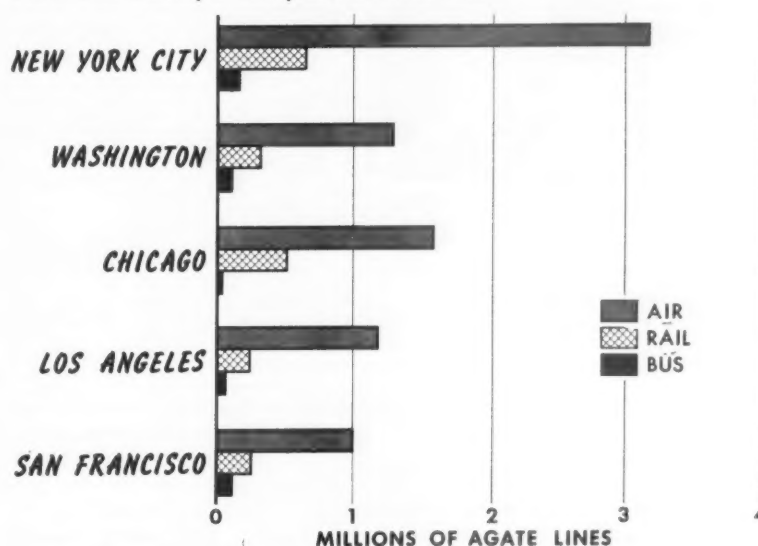
A study of newspaper advertising for 1956 provides evidence that air travel has soared on a heavy volume of advertising and promotion. Air carriers are blanketing every major market in the nation under a deluge of advertising. This creates two major benefits, ad men point out. First it attracts business directly and, second, it creates in the minds of non-travelers or occasional travelers the feeling that air travel is as modern as tomorrow.

As one advertising man puts it: "Thirty years ago a group of dedicated young fellows took the most dangerous, inconvenient, uncomfortable and noisiest means of travel then known and through sheer determination have sold it to the American public."

The accompanying figures compare actual newspaper advertising placement in 1956 by air and rail carriers. Five major markets are grouped (chart) to show the total local air, rail and bus newspaper advertising. (All railroad advertising in this survey includes freight, corporate and industrial development in addition to passenger. The airline advertising is almost entirely devoted to passenger traffic.)

Take the case of Pittsburgh, an intermediate point for most carriers. Passengers can board trains or planes there for travel in more than one direction. The Pittsburgh story is typical of many cities. Total railroad ad-

How Ad Outlays Compare in Five Cities



AIRLINE DOMINATION of these key cities shows up in bar chart comparison of newspaper advertising lineage in 1956.

vertising volume is only one-third that of the largest airline and is less than 10% of the total for airlines serving the city.

Total airline advertising in Pittsburgh, for the carriers scheduling regular flights and for the overseas carriers seeking foreign trade, reached 498,000 agate lines in 1956. The combined railroad advertising was 137,000 lines.

Local service air carriers place far more emphasis on passenger sales than some of the large railroads. Piedmont Airlines, a small southeastern line with 16 DC-3 twin-engine planes,

used more newspaper advertising in 1956 than the nation's largest railroad. Little Allegheny Airlines, a carrier operating in Pennsylvania and some adjacent states, outspent such carriers as the Chicago & North Western, Jersey Central, Erie, Reading and Denver & Rio Grande Western.

While this study is concerned basically with newspaper advertising in 1956, the full story of carrier advertising is shown in total dollar volume in recent years compiled by Printers' Ink magazine. Here's a listing of the eight carriers among the nation's million dollar advertisers:

| 1951             |         | 1953             |         | 1955             |         |
|------------------|---------|------------------|---------|------------------|---------|
|                  | (000)   |                  | (000)   |                  | (000)   |
| 1. Greyhound     | \$1,966 | 1. Greyhound     | \$2,719 | 1. American      | \$3,423 |
| 2. American      | 1,513   | 2. American      | 2,136   | 2. Eastern       | 3,412   |
| 3. AT&SF         | 1,502   | 3. Eastern       | 1,884   | 3. TWA           | 3,034   |
| 4. TWA           | 1,493   | 4. TWA           | 1,614   | 4. Greyhound     | 2,784   |
| 5. Union Pacific | 1,100   | 5. United        | 1,524   | 5. United        | 2,679   |
| 6. United        | 962     | 6. Union Pacific | 1,435   | 6. AT&SF         | 1,354   |
| 7. Eastern       | 892     | 7. AT&SF         | 1,412   | 7. Union Pacific | 1,311   |
| 8. National      | 744     | 8. National      | 910     | 8. National      | 1,237   |

(Continued on next page)

## 1956 CARRIER ADVERTISING IN NEWSPAPERS

### RAILROAD

| Rank | Road                      | Lineage<br>(000) |
|------|---------------------------|------------------|
| 1    | New York Central .....    | 1,698.8          |
| 2    | Union Pacific .....       | 1,100.5          |
| 3    | Santa Fe .....            | 674.8            |
| 4    | Grand Trunk .....         | 593.9            |
| 5    | Canadian Pacific .....    | 523.9            |
| 6    | Southern Pacific .....    | 509.8            |
| 7    | Baltimore & Ohio .....    | 420.1            |
| 8    | Great Northern .....      | 407.1            |
| 9    | Atlantic Coast Line ..... | 337.4            |
| 10   | Milwaukee .....           | 321.1            |
| 11   | Illinois Central .....    | 320.1            |
| 12   | Chesapeake & Ohio .....   | 313.9            |
| 13   | CB&Q .....                | 283.4            |
| 14   | Norfolk & Western .....   | 280.2            |
| 15   | Southern .....            | 273.1            |
| 16   | Rock Island .....         | 192.4            |
| 17   | Seaboard Air Line .....   | 187.9            |
| 18   | Pennsylvania .....        | 178.9            |

All data from Media Records, Inc.  
in thousands of agate lines

### AIRLINE

| Rank | Carrier            | Lineage<br>(000) |
|------|--------------------|------------------|
| 1    | Eastern .....      | 4,216.4          |
| 2    | American .....     | 3,625.9          |
| 3    | United .....       | 2,544.4          |
| 4    | Trans World .....  | 2,499.0          |
| 5    | Delta-C&S .....    | 1,575.1          |
| 6    | National .....     | 1,524.5          |
| 7    | Capital .....      | 1,135.8          |
| 8    | Braniff .....      | 939.6            |
| 9    | Northwest .....    | 645.5            |
| 10   | Continental .....  | 563.5            |
| 11   | Western .....      | 559.4            |
| 12   | Trans Canada ..... | 291.2            |

### BUS

| Rank | Carrier                     | Lineage<br>(000) |
|------|-----------------------------|------------------|
| 1    | Greyhound .....             | 2,299.6          |
| 2    | Trailways .....             | 317.8            |
| 3    | Continental Trailways ..... | 287.1            |

For 1957, however, Greyhound set up a multi-million dollar budget to sponsor the Steve Allen Show on NBC-TV, the first network broadcast for transportation advertising since the "Railroad Hour." This show was sponsored on radio in the late 40's by the Association of American Railroads as a general public relations vehicle.

While some railroad men seemingly believe that a first class, expense account market remains, their sales

efforts in specialized business newspapers and magazines tend to discount this opinion. For example, only the Baltimore & Ohio uses the Wall Street Journal regularly for building passenger sales. While most of the other major railroads use space in the Wall Street Journal, it is either for freight, corporate or industrial development advertising.

Railroads have a travel story to sell. On the basis of the advertising record, it is not being told. And on

the basis of the declining number of passenger-miles each year, this study can only point to the fact that airline advertising is producing results for those carriers that want passenger business enough to invite the traveling public to come along for a modern ride.

### Other Media

The dollar volume data above includes all measured advertising media: newspapers, magazines, radio, television, farm publications and business papers.

Daily newspapers are not, of course, the only media used to sell transportation. Heavy use is made by some carriers of radio and television and many use extensive magazine schedules. American Airlines has had great success with what appeared in the beginning to be an unusual advertising buy: it sponsors "Music 'Til Dawn" on radio stations in nine major markets with enough results to now be in its fifth year of use.

Railroad use of television did provide a bright place in the 1956 advertising scene. Eight lines spent \$774,000 in spot (non-network) television compared with the \$932,000 placed by six airlines. Greyhound was close behind, however, with \$639,000 and Continental Trailways added \$102,000 to put the bus total at \$741,000. The eight railroads included the Santa Fe, Canadian National, Great Northern, New York Central, Northern Pacific, Southern Pacific, Union Pacific, and Wabash.

## What Crimps Rail Ad Managers?

Trying to touch all bases thins railroad budgets in a hurry. Some ad directors feel a need for better "top level understanding" of advertising's role.

Railroad advertising managers concede that a good many railroads could do a better advertising job than they do now—and they list several reasons why they don't: lack of money; lack of understanding by top management of what advertising can do; on-again, off-again campaigns; and, in some cases, lack of "status" in inner councils for the ad manager.

Comments like these crop up in talks with railroad admen:

"The entire field of railroad advertising is neglected."

"Advertising is an accepted marketing tool in industry generally, but too often railroads are reluctant to accept and use it as such."

"Railroads could spend to advantage a good deal more money for freight advertising than they are doing today."

"I can only do so much with the budget I'm allotted."

"Advertising is used grudgingly, considering it an expensive drain rather than an intelligent, rewarding investment."

This is not to say that railroad advertising is all bad, nor should it be implied that railroad advertising officers aren't doing a good job. By and large they are proud of their accomplishments. But when they talk of their work, and when they're asked if there are "neglected" areas, some



### New facilities for Shippers

### New comfort for Passengers

**GREATEST FLEET WEST**

**SUPER DOMES**  
 OMAHA  
 MILWAUKEE  
 ST. LOUIS  
 CHICAGO  
 PORTLAND

**STREAMLINERS**  
 CITY OF SAN FRANCISCO  
 CITY OF SEATTLE  
 PACIFIC LUMBER  
 PACIFIC COAST

**DOMESTICS**  
 CITY OF LOS ANGELES  
 CITY OF PORTLAND

**THE MILWAUKEE ROAD**

### Now! Lackawanna... Lowest Rail Fares to Buffalo • Cleveland • Chicago

Compare the comfort... then compare the cost!

| From     | To        | First Class | Second Class | Third Class |
|----------|-----------|-------------|--------------|-------------|
| New York | Buffalo   | \$12.00     | \$8.00       | \$5.00      |
| New York | Cleveland | \$15.00     | \$10.00      | \$6.00      |
| New York | Chicago   | \$18.00     | \$12.00      | \$7.00      |

**LACKAWANNA**

### GLORIOUS 8-DAY TOUR TO CANADA'S PROVINCES-BY-THE-SEA ...'311' FROM NEW YORK!

One of the many fun-filled Maple Leaf Vacations offered only by

**CNR** CANADIAN NATIONAL RAILWAY

### SEABOARD'S FLORIDA "Package Vacations"

NOW to November 15

AS LITTLE AS **\$86.47** FROM NEW YORK

**HERE'S WHAT YOU GET**

- ★ Streamliner travel to and from Florida
- ★ Reserved, reclining coach seat each way
- ★ 7 DAYS and 6 NIGHTS AT AN OCEAN-FRONT HOTEL IN GLAMOROUS MIAMI BEACH
- ★ All guest privileges including swimming pool and beach facilities, plus "extras"
- ★ Transfers between trains and hotel

**On the Silver Fleet:**

Special type of custom-built coaches... "Silver Fleet" coaches... "Silver Fleet" coaches... "Silver Fleet" coaches...

**FOR LITERATURE GALORE — SEE YOUR TRAVEL AGENT**

20, L. O. Wagon, C. A. A.  
 Phone: Circle 5-7380

**THE WAY TO FLORIDA FUN... SEABOARD RAILROAD**

THE ROUTE OF COURTEOUS SERVICE

### You'll see more, relax more on Canadian Pacific's Scenic Dome Train

Canadian Pacific

### MIAMI BEACH Only \$89.47

A bigger vacation at a price you can afford... "Champion Vacation"

**COAST LINE**

RAILROAD ADVERTISEMENTS in Sunday newspaper travel sections often stress price, destinations. Most rail

advertising directors consider their passenger work most effective, but industrial development runs a close second.

do make suggestions. Several feel, for example, like J. B. Shores of the Texas & Pacific and R. R. Horner of the Norfolk & Western, that one place advertising can do more to help the railroads is in the institutional or public relations field.

In contrast to what may be inferred from the accompanying article by Mr. Shaffer, officers who prepare and spend railroad ad budgets generally think they are doing their best job in the passenger field. One western road's spokesman puts it this way:

"On the whole, I think railroad

passenger service advertising is good. It compares favorably in appearance and copy with the advertising of other industries. Of course, it can be improved and there should be more of it."

#### Shoestrings Budgets Hurt

This remark that more passenger advertising is needed recalls a report published in an advertising magazine a few months ago. The magazine pointed out that railroads collectively spent about \$30 million on advertis-

ing in 1956. But, the report added, even if Congress gives railroads greater freedom in which to compete "ad managers will still be handicapped by inadequate budgets."

Why does the feeling exist that railroads are too stingy with advertising dollars? If that is the case, why does the condition continue?

On that point a lot of railroad advertising men share a common concern: Too often those who participate in setting railroad ad budgets are not "advertising minded." They have trouble measuring the value of

advertising; the product is intangible, and immediate results can't always be tallied up on the balance sheet. So the ad director sometimes has to do some "internal" selling to convince his management that a sound advertising program will pay off just the same as investments in power and rolling stock.

If advertising results could be measured immediately in the same way, say, as a grocery ad in the Thursday newspaper, things might be different. But selling a concept or an idea takes time. In the area of "public relations" advertising, for example, no one ad, or even a single series, can be proved to have driven home the positive message that railroads are progressive and deserving of public support on important transportation issues.

### Wiser Spending Ahead?

Looking at the facts as they stand right now, the question can be asked: Are railroads getting maximum ad-mileage from the money they do spend? In many cases, yes. Perhaps more could be done, including greater coordination at local or regional levels—which, in an industry that lives by coordination, is a strange thing to say. More than one ad manager has suggested that "all railroads should combine their efforts on matters other than those of a local nature." The ad director of a midwestern road is quite specific: "Why not joint advertising by competing railroads—a concerted effort to convince the traveling public that it's still smart to travel by train?" This could mean joint ads by railroads serving specific cities. The idea isn't new. Neither has it made much headway, largely because the very competition mentioned prevents it.

Research is getting more attention on a lot of roads as one way to bolster the advertising return. The Association of Railroad Advertising Managers has put its weight behind this move, too, and, as one advertising officer points out, "more is being done today than ever before, and the money going into such research is certainly well invested."

Apparently, too, more use is being made all the time of the research facilities and staffs of the advertising agencies which handle railroad accounts.

An experience reported by the New York Central several months ago illustrates how this can work. The

railroad and its ad agency undertook to find out, by survey, just how the public "felt" about different modes of travel. More than a thousand personal interviews were conducted, and the findings caused a sharp reshaping of advertising copy. In the public mind the air traveler was found pictured as "modern, busy, eager and adventurous." The traveler by auto was "middle-class and friendly." If a person traveled by train he was "cautious, old-fashioned, vegetative." So advertisements stressing safety and dependability of rail travel were put away, replaced by a new campaign putting emphasis on the "fun, smartness and modernity" of rail travel.

There is a strong consensus among railroad advertising officers that, given the chance, they can help the industry hold its own competitively with other forms of transportation. This goes back to the not-infrequent opinion that the adman should have a bigger role in policy-making. It recognizes,

too, that he has to be thoroughly familiar with all phases of his company's operations.

### More "Hard Sell" Needed

One ad manager in the East rests his case with this suggestion: Stick your nose in sales and marketing functions if only to ask rudimentarily embarrassing questions; use the talents of the agency, if it be a good one, to the utmost; and look at your job as something bigger than just production.

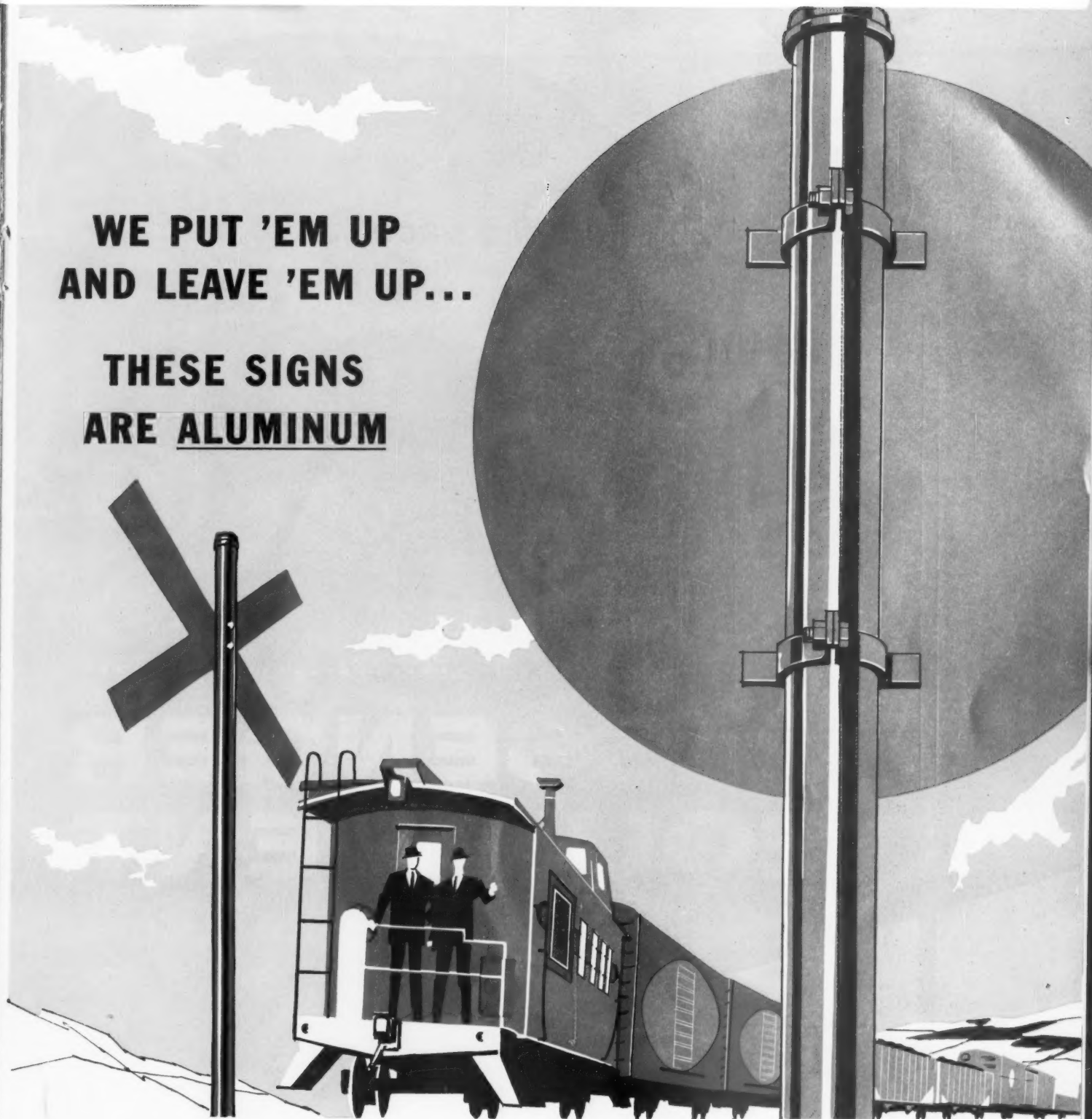
Comes this echo from another road: "If the industry wants to get its share of the overall transportation dollar, it has to sell just as hard as the competition—it has to do an advertising and promotion job of the same caliber as is done by the average manufacturer in selling his wares. The real story of railroad progress has not been told in a loud enough voice."

## 12 Ideas from Railroad Advertising Directors—

1. Advertising should not be tied to traffic fluctuations and should not be turned on and off like a spigot.
2. Cooperation between two or more railroads, even in competitive areas, might pay surprising dividends.
3. The purpose of advertising is to help generate sales—or promote public good will—and the ad manager can contribute to policy programs.
4. Officers who help fix ad budgets should consider advertising a long term investment. Programs must be consistently maintained at regular intervals.
5. A good ad program can supplement public relations, but not replace it, in telling the story of railroad progressiveness. News quickly loses freshness; advertising can repeat a good story often.
6. Perhaps individual roads should be more "competitive" in their own ad copy—most competitive industries seem to rank highly with the public.
7. More advertising of an institutional or public relations theme is needed because it can win public support in the industry's behalf.
8. Money spent on research to sample public opinion will pay off in information for more effective advertising.
9. Any railroad that advertises should be able to back up its claims with service to match.
10. Generalizing and use of platitudes may satisfy ego but are not effective business stimulants.
11. No ad program is any better than its follow-up. This can include direct mail, general correspondence or personal contact.
12. A steady, controlled flow of messages to the public is the best way to get the railroad story across.

**WE PUT 'EM UP  
AND LEAVE 'EM UP...**

**THESE SIGNS  
ARE ALUMINUM**



These signs and crossbucks can't rust. They can't rot. They never need painting. They're made from Alcoa® Aluminum.

The message film won't delaminate, even if it's punctured or damaged, because there's nothing underneath to rust. You don't have to worry about sealing the edges, or moisture entering the boltholes. Install 'em and forget 'em.

The new Alcoa Universal Crossbuck, shown above, is the lightest, most rigid crossbuck available today. The message appears on both sides in full-size letters because there are no ribs or boltholes to interfere. This crossbuck has an adjustable mount which fits most existing posts.

Progressive railroaders are using more and more light, strong, rustfree Alcoa Aluminum—for crossbucks, wayside signs of all types, tank cars, lightweight trains, boxcar doors, lading bars, freight and passenger stations. Get more information on the applications you're interested in. Send today for free booklet *Railroad Signs*. Write: Aluminum Company of America, 2180-G Alcoa Building, Pittsburgh 19, Pa.



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DESIGNED**

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EQUIPMENT**



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designed with  
**LOCAL  
SERVICE** in mind

Local passengers are enjoying the comfort and convenience of this new **QCF** double-decker commuter train, now in service on the Southern Pacific. Designed for comfort, low maintenance and long wear, the interior features stainless steel and vinyl plastic.

And other new developments are in process. They will result in passenger equipment that is lighter, simpler...more economical to buy and operate.

designed with  
**INTERCITY  
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Light, low, and fast on straightaways and curves, the famous **QCF TALGOS** have proved to be just the tickets for intercity service. Passenger runs over intermediate distances benefit from their economy as well as from their speed. Now in daily revenue service on the Rock Island Lines and the New Haven, with a third due to start soon on the Boston & Maine.



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The world's first Dome Diners, now helping build prestige and profits for the Union Pacific ...Dome Observation and Dome Coach cars, for the extra dimension of luxury and public appeal on long, scenic routes...entirely new, low-cost head-end cars...and important improvements in conventional passenger equipment of all kinds help set the pace of equipment progress for America's railroads!





DISPATCHER'S SEAT at console is about 8 ft from large track diagram.

## Now—Compact Control for CTC

The dispatcher sits at a small console which has a set of switch and signal push buttons. By selection, he can control the switches and signals at any of numerous layouts on an entire division. Track diagram is in plain view, but separate from console unit.

Between Toledo, Ohio, and Elkhart, Ind., 133 miles, the New York Central is changing to two main tracks all the way. Thirty miles was previously 4-track, and 21 miles was 3-track. Adequate capacity to handle 80 trains daily on the two remaining tracks is being secured by installing centralized traffic control with signaling for train movements both ways on both tracks.

### **Separate Diagram the Key**

Power-operated crossovers are located an average of 12 miles apart, so that idle sections of either main track can be used to run fast trains around slower ones, thus keeping all trains moving. These practices are much the same as those used in operating similar CTC installations recently com-

pleted on this railroad. The novel feature in this Toledo-Elkhart project is the new CTC control machine, the first of its kind.

On conventional CTC machines, the illuminated track diagram extends across the top of the panels, the switch and signal levers being mounted on the same panels below the symbols for each controlled field location. The space requirements for the track diagram thus have been the controlling factor in determining the length of the control machine. Such a machine for the Toledo-Elkhart project would be about 18 ft long.

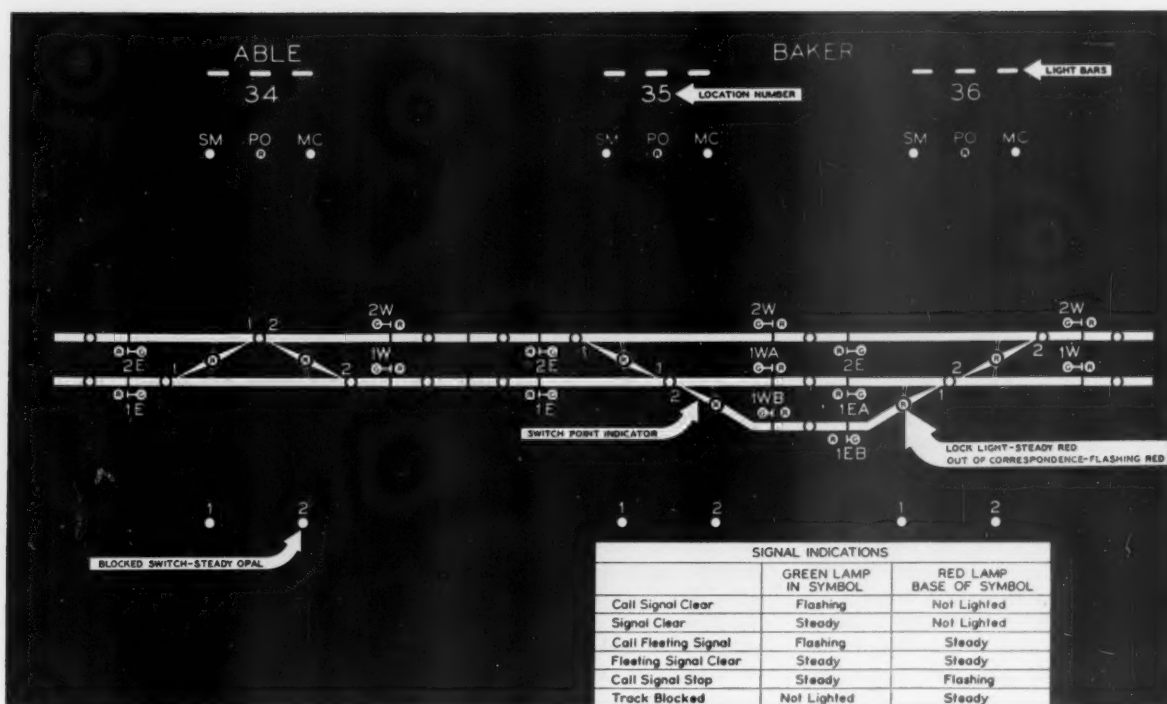
In contrast, the control machine for this new NYC project is designed to be so compact that the dispatcher can manipulate the entire machine from a seated and stationary position. This

compactness was attained by two innovations: (1) removing the illuminated track diagram (including all indications) from the control machine, and placing it on a large separate panel, and (2) use of one set of push buttons which, by selective control, can be used to control switches and corresponding signals at any one of 18 layouts on the entire 133 miles.

### **The Track Diagram**

As a result, the controls for all the switches and signals on the 133 miles of double track are now concentrated on an operating panel 14 in. high and 20 in. wide on the dispatcher's console at Toledo.

The illuminated track diagram is a separate large-sized panel mounted 5



THIS TYPICAL section of the track diagram illustrates its new features (see arrows).

ft above the floor line. Each section of this diagram is 24 in. high. The center section is about 6 ft long, and the side wings are each about 7 1/4 ft long, totaling about 20 ft. The track diagram is in plain view about 8 ft from the dispatcher seated in his chair at the control console.

The panels of this track diagram are black, each track being represented by an engraved white line 1/4 in. wide. Lamps set in the track lines are lighted when a train occupies a corresponding section of track. Power switches and crossovers are represented on the diagram by movable switch-point indicators. A red lamp in each switch-point indicator flashes when the switch is not in the position called for. When it burns steadily it indicates that electric locking is in effect, to prevent operation of that switch.

### The Control Console

On the diagram each home signal is represented by a symbol which includes a lamp that is normally dark, thus indicating that the corresponding signal is at "stop." The lamp flashes green when control is sent out to clear that signal. This flashing green changes to steady green when the

signal has cleared for an established route.

The dispatcher's operating panel is divided into two areas (next page). The upper area contains "location selection panels," each carrying five "location buttons" with associated indication lamps, corresponding with each field location track layout such as "Able 34" on the track diagram. Five such buttons and lamps are in a vertical row on each panel, which is 2 in. wide and 6 3/4 in. high. Thus, for the 18 field locations between Toledo and Elkhart, 4 such small panels are required with a total area 6 3/4 in. high and 8 in. wide.

### To Line Up a Route

The lower row of operating panels, each one measuring 2 in. wide and 6 3/4 in. high, are numbered consecutively 1, 2, etc. Each panel has six push buttons including "N" to control a switch to the normal position and "R" to control a switch to the reverse position; "S" to control a signal to stop, "W" to clear a westward signal, and "E" to clear an eastward signal. The button with no letter at the bottom of the panel is the code start button.

An example of the operation, say that an eastward train on the work

siding at Baker is to be routed out of this siding and eastward on the No. 1 track, which is the lower one shown on the diagram. The switch and signals to be controlled are in the No. 36 field location. Therefore, the dispatcher reaches to the upper portion of his console panel where he pushes location selection button No. 36. The lamp adjacent to this button is lighted and, on the track diagram, the three bar lamps are lighted above the figure "36," indicating to the dispatcher that he can now control the switches and signals at that field location.

Then, on control panel No. 1, he pushes the "R" switch button, and at location 36 on the track diagram the switch indicator moves to display a full width white line for the track line-up desired. Thus the dispatcher, by glancing at the diagram, has a pre-check that his manipulation thus far is correct for the route desired. Then he pushes button "E" for signal 1EB at location 36, and next he pushes the code-start button at the bottom of the panel, thus transmitting the control codes to the field location. In the meantime, on the diagram, the red indication lamp in the movable-point indicator, representing switch 1 at location 36, flashes until the switch is over and locked in the position called



for. The lamp then burns steady red. Also the green lamp in the symbol for signal 1EB at location 36 flashes until the aspect of the signal changes to clear, after which the lamp in the symbol burns steady green.

### Example Involving Two Switches

Say that an eastbound train on the work siding at location 36 is to be routed out of the east end of this siding, then over the crossover reversed, and on eastward track 2, which is the top one as shown on the diagram. The dispatcher reaches to the upper row of operating panels, where he pushes location-selection button 36.

On control panel 2 in the lower row, he pushes the "R" button for control of crossover 2 to the reverse position; then on control panel 1 he pushes the "R" button to move switch 1 at the east end of the siding to the reverse position. He then pushes signal button "E" on panel. Next he pushes the code-start button on control panel 1, thus transmitting the control codes to field locations 36. The switch and crossover are operated, and signal 1EB clears, indications being returned to the control machine as previously discussed.

An advantage in the manipulation is that pushing the code-start button cancels the location-selection, and extinguishes the location lamps; both on the selection panel and on the track diagram. Thus, no further action is required to cancel a previously selected location, and any other location can then be selected.

If a signal which has been cleared is to be taken away, the dispatcher

pushes the location-selection button, and then, on the corresponding control panel, pushes the "S" button which causes the red lamp at the base of the signal symbol on the track diagram to flash. He then pushes the code-start button. The signal aspect will be changed from clear to stop, as is indicated by the fact that the green light in the signal symbol and the red light at the base of the symbol are extinguished.

If it is anticipated that two or more following trains will use the same straight through main-line route, fleeting operation of signals can be set up so that when one train has passed through, the signal will again clear for the next train, without further action by the dispatcher. Say that fleeting control is to be set up at field location 34 for eastbound trains on track No. 1 (the lower track shown on the diagram). With all switches and crossovers normal, the dispatcher pushes location selection button No. 34, then the "FL" button on the auxiliary panel, while also pushing the "E" button on control panel 1. Such a call for fleeting is indicated by a flashing green in the signal symbol, and a steady red at the base of the symbol. When the signal has cleared, the flashing green in the symbol changes to a steady green, and the red light at that base of the symbol stays steady red as a reminder to the dispatcher that fleeting control is in effect.

### Blocking Control, a New Idea

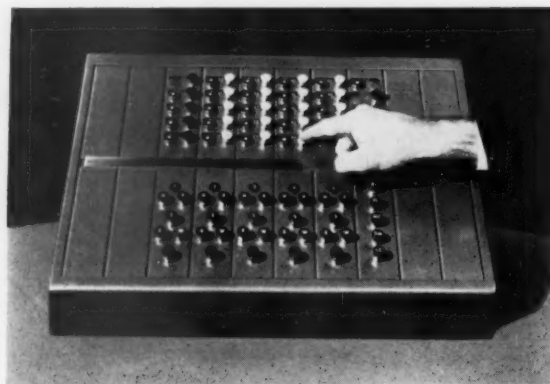
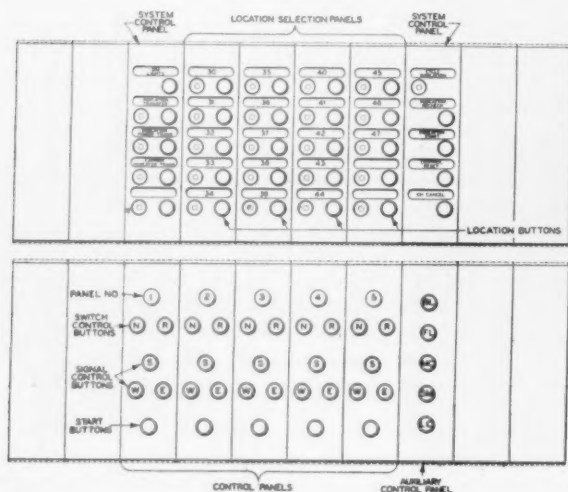
With previous conventional forms of CTC machines, if certain switches, crossovers or sections of track are to

be "out of service" while replacements or other work are under way, operation of the affected switches or crossovers, or clearing of signals, is prevented by placing "blocks" on the levers. This is called "blocking."

A new procedure, first applied in the CTC machine at Toledo, is to accomplish "blocking" by manipulation of controls, including the "pulling" of buttons, the result being that absolute safety is accomplished by interlocking between circuits.

For example, if a particular 6-mile segment of No. 2 track (upper one on diagram) is to be used exclusively by on-track power tampers for a period of four hours, this section of track can be "blocked." To set up this "block," the dispatcher pushes the location selection button 34; then he pulls the signal control button for signal 2W at location 34, at the same time pushing the blocking button "BL." On the diagram the red indication lamps are lighted at the base of the symbols for signals 2W at location 34 and 2E at location 35 to indicate that blocking is in effect, so that no signal can be cleared to permit a train to enter this section of track 2. This blocking remains in effect until canceled by the dispatcher, which is done by pushing the location selection button, then simultaneously pulling both the blocking button and the appropriate signal button. Blocking of this track section could also be accomplished at location 35 by operating signal button 2E.

This CTC control machine, as well as the other signaling equipment being installed on the Toledo-Elkhart project, were designed and made by the General Railway Signal Company.



DISPATCHER pushes button to apply controls to field location 44.

◀ THE SWITCH and signal control buttons can be made to control any field station by pushing a numbered button.



## HOW ARE THEY DOING?

... ON THE TEXAS & NEW ORLEANS

# Emphasis on Opportunity



Gathered for lunch with a Railway Age reporter recently, several Texas & New Orleans officers painted a picture of progress and promise.

Hard on the heels of ruinous Texas floods and a statement by SP President D. J. Russell taking a dim view of the future of railroad passenger business, the meeting was marked by an emphasis on growth and opportunity for the T&NO and the industry.

With the complete concurrence of the other officers present, E. W. Torian, vice-president of the SP lines in Texas and Louisiana, declared that "there's more promise in a railroad-ing career for a young man today than in any other field I know of."

Forced to shrink its passenger operations gradually over recent years because of falling patronage, the T&NO is ambitiously pushing ahead to develop a well-rounded transport service.

Its piggyback business is up; it has averaged a new plant location on its lines every day for a year; it is well-pleased with, but still trying to improve, its new Englewood retarder yard at Houston; it is thinking in terms of more such "automated" humping facilities elsewhere; it has an extensive welded rail program under way; it has consolidated its paper-work activities and is now moving to accelerate them with high speed computers; it is pushing the services

of its trucking arm; and it is working on better ways to train young salesmen and engineers it brings onto the road.

Carloadings have been down five to eight per cent so far, compared to last year, about on a par with the national average, but Assistant Freight Traffic Manager G. E. Miller contends that "I don't think there's anything wrong with our traffic picture that good weather won't fix."

Higher loadings are forecast for the second half of the year, and Transportation Superintendent J. E. Adams anticipates that the road will about match last year's record.

Mr. Miller is outspoken in his enthusiasm for piggyback but takes the position that the service should not be viewed as a means of winning new business from truckers. It might regain traffic the trucks won from the rails earlier, he says, but the service is not truck-competitive. It's still tied to the rails by schedules and geographically, he points out.

### Where TOFC Fits

Its importance, however, is in the dependable service it provides, contributing to the modern business practice of maintaining smaller and smaller inventories to control costs. TOFC "fills a need for expedited service and pick-up and delivery by a railroad," Mr. Miller declares.

At the same time, Mr. Torian interjects, it is restricted to traffic that will mean the greatest net—"good pay, good weight" commodities like canned goods, roofing, sugar, staples and petroleum "case goods."

There are no "\$5,000 records for \$50 cows" on the property now, according to J. L. Stone, secretary and assistant auditor. He tells of real efforts to minimize paperwork and eliminate obsolete reports.

T&NO paperwork, he reports, has been mechanized for many years but has only recently been brought under one roof at Houston. This October,

he said, an IBM 650 electronic computer will be installed there to speed up payroll, interline divisions and car accounting work.

A research bureau is studying further applications but, because the three programs already listed will "fill" the 650, a second computer has been ordered tentatively. Interline freight accounting, interline abstracting and one or two car service applications will be programmed on the second machine.

### Less Record Keeping

Chief Engineer L. A. Loggins also holds out the hope that some engineering computations may be set up on the medium-size "brain," but warns that sometimes the preparations for a five-minute calculation on such a device may be more costly than ordinary computation.

Meanwhile, B. M. Stephens, assistant to the executive vice-president, notes that "we're trying to develop to the hilt" the studies of the research bureau.

As an example of how record-keeping is being reduced, General Manager R. de Waal tells of a change from a system of shopping diesel units on a mileage basis to a calendar basis because it was found that mileages pretty well average out periodically.

"Efficiency rather than economy is the big thing," Mr. Torian notes.

Mr. de Waal and Assistant General Manager G. W. Kelly proudly join Mr. Stephens' glowing report on the operations of the Englewood yard. "Not a single train has been held because of our inability to receive it," Mr. Stephens says. "We stay current now," Mr. Kelly adds, where "it was a congested yard" Thursday to Saturday in the past.

Even with such a record, the T&NO isn't content to let well enough alone and is constantly working to get better control of car speeds through alternation of rail heights and occasional "bumps" to keep wheels loose.

# TRAFFIC MASTER

by

## GRS

now in service  
on the



One-man control of the New York Central Railroad main line between Toledo, O. and Elkhart, Ind. is now an actuality. Chief factor in this accomplishment is GRS Traffic Master, the new idea in control machine design.

This installation, the first in the world, is another new breakthrough by GRS, the inventors of radar Yard Automation, and of Syncroscan, the *electronic cTc* system, unique in its field for speed and capacity.

With operation as swift and compact as

punching the keys on an adding machine, Traffic Master gives an operator tremendous potential for fast, accurate, traffic control with negligible physical motion. With this exciting new concept, you can achieve concentration of control far beyond the range of former panel design.

GRS Traffic Master is the perfect complement to the great speed and capacity of Syncroscan *cTc* used on this project. Ask your GRS representative about this all-pushbutton, lightning-fast, traffic control system.



GRS brings you Railroading  
**GENERAL RAILWAY SIGNAL**



Traffic Master installation at Toledo Terminal.

### 133 miles at his fingertips!

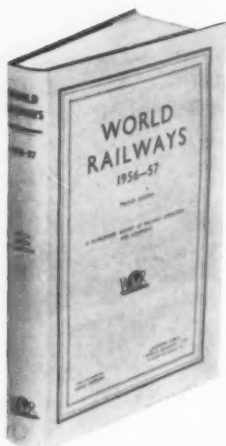
From this small pushbutton panel in the control office at Toledo, the operator controls the switches, signals, snow melters, etc. over 133 miles of double track, with traffic in both directions on both tracks. Train movements and other intelligence are clearly displayed on the large-scale diagram before him. He can make immediate decisions—take immediate action to direct trains to best advantage.



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## WORLD RAILWAYS

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A world-wide survey of railway operation and equipment covering 1,470 railways in 106 countries.

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502 pp. 879 illus., 119 maps, large 8 1/4 x 12 1/2 format \$20.00

## HANDBOOK OF AMERICAN RAILROADS

by Robert G. Lewis

The complete illustrated data guide to every Class I railroad in the United States.

[2] This handy reference volume condenses and analyzes a vast amount of information on America's Class I line-haul rail carriers. Its broad scope is indicated by its coverage of financial and operating data, equipment statistics, historical sketch, biographical data on the chief official of each road, route map, herald, etc. Convenient for desk use.

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### Other Books of Interest—

[3] **Super-Railroads for a Dynamic American Economy**—by John Walker Barriger. The basic elements of the railroad problem—physical, financial, and managerial—in modernizing plant and service are subjected to penetrating analysis in this brief study. In reappraising the railroad industry as it is today and outlining a comprehensive plan for modernization of service while at the same time lowering costs, the author concludes that the brightest challenge and greatest growth for the industry still lie ahead. 91 pp. (17 pp. tables), paper bound—\$2.00.

[4] **Iron Road to Empire**—by William Edward Hayes. The fascinating history of the Rock Island Railroad, based entirely upon research and factual record, carefully collated and woven together in a complete story of the Rock Island lines. Packed with local color. Railroad Americana at its best. 320 pp. \$5.00.

[5] **Mileposts On the Prairies**—by Frank P. Donovan. A history of the Minneapolis and St. Louis Railway Company—one of the most interesting among Class 1 rail carriers and the "Little" big railroad that played such a major role in the development of the great American midwest. 310 pp. \$4.50.

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[7] **Pocket Guide to American Locomotives**—by Walter A. Lucas. A unique locomotive identification volume; describes and illustrates practically every locomotive now or recently in service on U. S. and Canadian railroads. 288 pp. \$4.50.

[8] **A Picture History of Baltimore & Ohio Motive Power**—by Lawrence W. Sagle. Pictorial account of B & O's 125 years of locomotive development from the little "Tom Thumb" of 1830 to today's gargantuan diesels. 192 pp. \$3.75.

[9] **Rights of Trains**—by the late H. W. Forman and Peter Josseland. An essential reference for railroad operating personnel. Analyzes the standard code of operating rules of the A.A.R. as applied to single and double track. (4th ed.) 397 pp. \$4.95.

[10] **Who's Who In Railroading**—biographical sketches of more than 6,000 officials and others in the industry. 1954 (13th ed.) 800 pp. \$7.00.

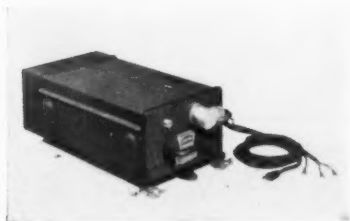




### Sheet Metal Primer

*... sticks to zinc*

Galvinoleum, a specially formulated coating for new, unpainted galvanized, aluminum, or terne plate surfaces, is available in red, gray, green, or metallic colors. Any high-quality oil base house paint may be used over it to match a desired trim color. It is said to take hold and stop peeling problems, and to eliminate tedious etching or weathering as well. Gutters, siding, roofing, and ventilating ducts are just a few of its applications. *Rust-Oleum Corporation, Dept. RA, 2799 Oakton st., Evanston, Ill. •*



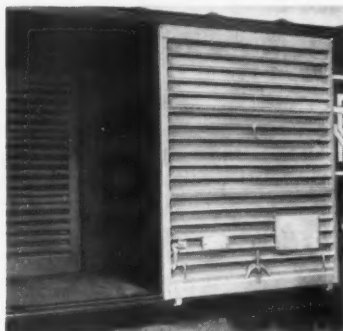
### Radio Repeater

*... for yards and terminals*

This device is primarily intended for yard and terminal use to extend the talk-back range for walkie-talkies, but it can also be used as a mobile repeater for relaying messages between two mobile units. In yard and terminal applications, messages from the walkie-talkies are picked up by the "Stan-Pac" receiver, whose antenna is normally mounted on a floodlight tower or other high fixture. By two-wire conductor, the received voice message is fed to the trans-

mitter, which automatically retransmits the message on a second frequency to the base station or engines.

"Two-package" design is said to permit realization of maximum interference protection through physical space separation between transmitting and receiving antennas and radio equipment. The new equipment meets the AAR's specifications for the standard package unit. *Communications & Electronics Division, Motorola, Inc., Dept. RA, 4501 W. Augusta blvd., Chicago 51 •*



### Aluminum Box-Car Door

*... needs no paint*

Welded aluminum box-car doors are going into service on the Pennsylvania. Fifty 8-ft doors are being installed on Class X46 and X52 box cars equipped with loading devices.

The weight of the 8-ft aluminum side door is 256 lb, compared with 523 lb for a conventional door. An additional advantage is the resistance of aluminum to ordinary corrosion. The doors are not to be painted.

Aluminum for this application is 5086, a strong, weldable alloy containing magnesium and manganese. Welded construction was chosen over riveted assembly because of greater speed, reduced weight, lower cost, and more "unitized" product. A specially designed aluminum extrusion is used in the vertical edges, or "stiles," of these doors providing rigidity for door and sealing.

The door's upper edge is 1/8-in. shaped aluminum sheet, and the bottom edge is standard bottom door-section from 5/32-in. sheet. The

door faces are corrugated panels of three .109-in. gage aluminum sheets.

On forty of the doors standard cast-iron door rollers with lubricated anti-friction bearings were used, while the remaining ten doors, for test purposes, were fitted with Nylon rollers which do not require lubrication or anti-friction bearings.

Possible electrolytic action between the aluminum and the ferrous parts is prevented by a coating of zinc chromate primer on the aluminum and of non-lead-bearing primer on the steel and iron. A layer of Alumilastic paste is also applied prior to joining the dissimilar metals.

The field experience gained through daily use of these 50 doors will be supplemented by accelerated service tests of several doors in a commercial laboratory. *Kaiser Aluminum & Chemical Sales, Inc., Dept. RA, 919 North Michigan ave., Chicago 11. •*



### Plastic Panels

*... can now be coated*

Old glass-fiber reinforced-plastic building panels may be resurfaced by a new coating, "Corrucote," which can be applied either by brushing or spraying. This coating may also be applied to new building panels for the reduction of light. The new coating was developed after an extensive test program involving 13 different coatings and it was selected as the industry standard coating for general-purpose panels. It is available

in five colors in addition to the clear material.

Corrucote basically is an acrylic lacquer and has a drying time of 20 min to a tack-free state. Although one coat may be brushed on the surface, the manufacturer recommends that spray methods be used to eliminate streaking. Commercial solvents, zylene and toluene, may be used for thinning.

In the illustration, the very top shows the old panel with the glass fibers showing. Immediately below, the same panel has been cleaned. Below this, one clear coat of Corrucote has been applied. The next horizontal area shows the panel after one coat of green has been applied, and, at the bottom, the panel looks like new after a second coat of green Corrucote. *Corrulux Division, Dept. RA, L-O-F Glass Fibers Company, Houston, Tex. •*



#### Freight Retainer

*... secures at any angle*

A pair of SeCure Freight Retainers divides a box car into three compartments. These bulkheads can, according to their manufacturer, be drawn tightly against any load at any position in the car. Lading can extend past the door and still be secured tightly.

The bulkheads are self-contained and are made of 10- and 16- gage steel. They are suspended from a trolley which enables them to be moved into position quickly. Chains, which are contained in channels in the car lining, and ratchets fasten the

retainers tightly against the load. The bulkheads can be sealed to prevent tampering and fastened against the end of the car when not in use.

Strength of a car containing the SeCure bulkheads is increased by the special roof reinforcements, the manufacturer says. Strain on the sides and lining of the car is eliminated because the corner posts and door frames support the load. *General Freight Appliance Corporation, Dept. RA, 4125 Hamilton ave., Cincinnati 23. •*

#### Side-Dump Bucket

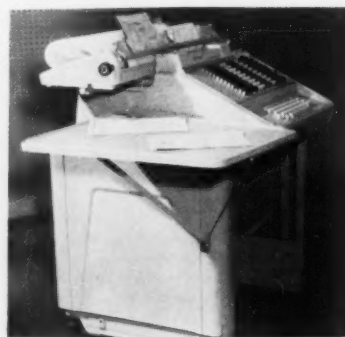
*... now available for excavator*

The Traxcavator no longer need be turned for loading into trucks with the addition of an accessory 1½-cu yd side-dumping bucket which is now available. The machine can perform in-line loading which not only increases production by reducing loading time, but also, according to the manufacturer, the side-dumping feature serves to lower maintenance costs by reducing the wear on tracks, track parts, steering and master clutches and idlers, due to turning. In addition, loading can be accomplished with less space required for the machine and for truck spotting and with less ground scuffing.

Side dumping is accomplished without sacrificing the efficiency in standard Traxcavator applications by the use of a hydraulic cylinder, mounted on the bucket carriage. The bucket is hinged to the carriage and is firmly locked in place when in the conventional digging position. When side dumping is desired, the operator actuates the hydraulic cylinder by means of a control lever situated to his right atop the hydraulic tank. When actuated, the dumping cylinder unlocks the bucket from the bucket carriage and swings it into a side-dumping angle of 60 deg. A third hydraulic valve, easily installed in the machine's hydraulic system, controls the dumping cylinder. Installation and removal are said to be simple operations inasmuch as the new bucket is mounted



to the machine's tilt and lift arms by four pins. *Caterpillar Tractor Company, Dept. RA, Peoria, Ill. •*



#### Accounting Machine

*... is a typewriter, too*

Typing Sensimatic, a new machine offered in 10 models by the Burroughs Division of Burroughs Corporation, combines an 84-character full-keyboard with a high-speed accumulating-register accounting machine. The machine was designed to meet increasing demands for flexibility in the handling of office paperwork, particularly posting and accounting. It can be used with standard or specially designed forms. The typing line of the carriage has room for 182 characters. *Burroughs Corporation, Dept. RA, 6071 Second ave., Detroit 32 •*

who called the railroads a "monopoly"??

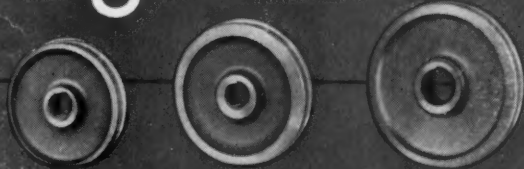
by Hungerford



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# Edgewater

## Rolled Steel Wheels



for Freight Cars Passenger Cars Diesel Locomotives



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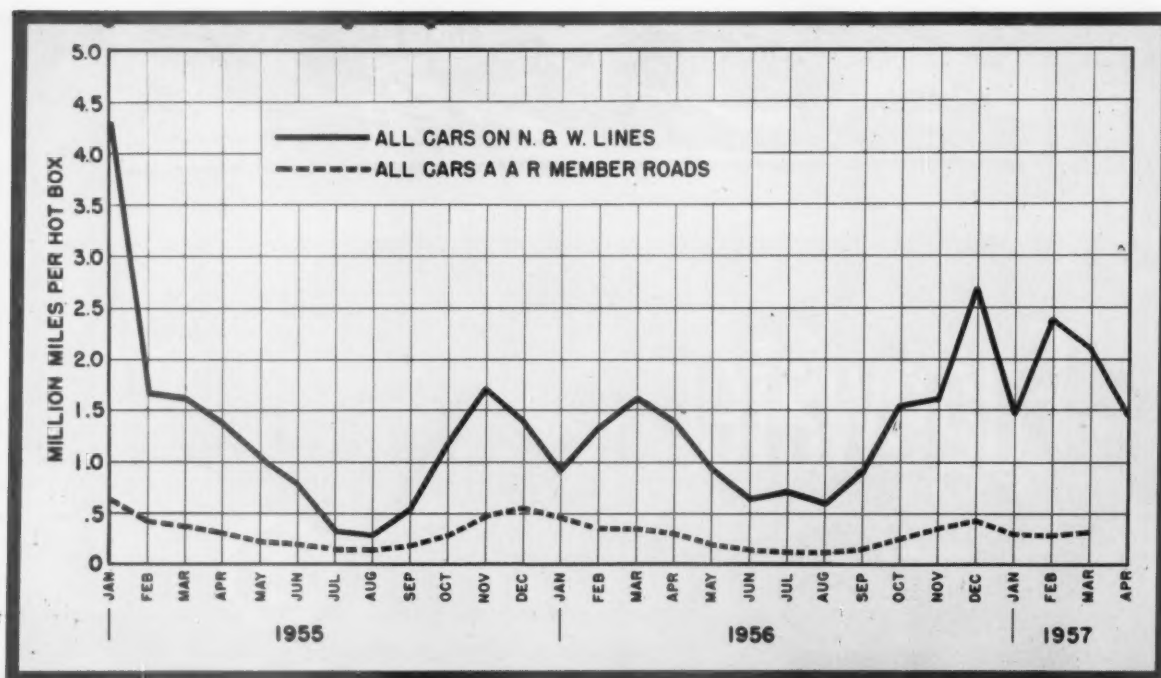
## Lubricator Pads—Less Servicing,



C. E. Pond, chairman AAR Mechanical Division and general superintendent motive power of the Norfolk & Western, told of his railroad's work with journal lubricators during the opening session of the annual meeting of the Mechanical Division last Tuesday while pointing out the necessity for continuing research by railroads.

Lubricator-pad equipped cars on the Norfolk & Western perform 2.5 times better than waste-packed cars, according to the road's GSMP. However, the use of pads has intensified the need for better journal box seals; pad wicking characteristics deteriorate with age; and some pads do not wick AAR specification car oil adequately during cold weather. This means poorer performance during winter months. For the present, if hot boxes can't be eliminated they must be detected accurately before they can cause trouble.

"Not satisfied" though N&W does somewhat better than national average . . .



N&W HOT BOX RECORD is better than the average for all roads. "While some of our efforts have been fruitful,"

said Mr. Pond, "our performance is not what it should be . . . and we are working to improve it."



# Better Performance, But No 'Cure-All'

Efforts by member railroads aimed at reducing hot boxes were illustrated for the annual AAR Mechanical Division meeting last week when C. E. Pond described the activities of the Norfolk & Western in this field. He said that N&W efforts so far have been "fruitful," but that "performance is not what it should be." The road is working diligently to improve it.

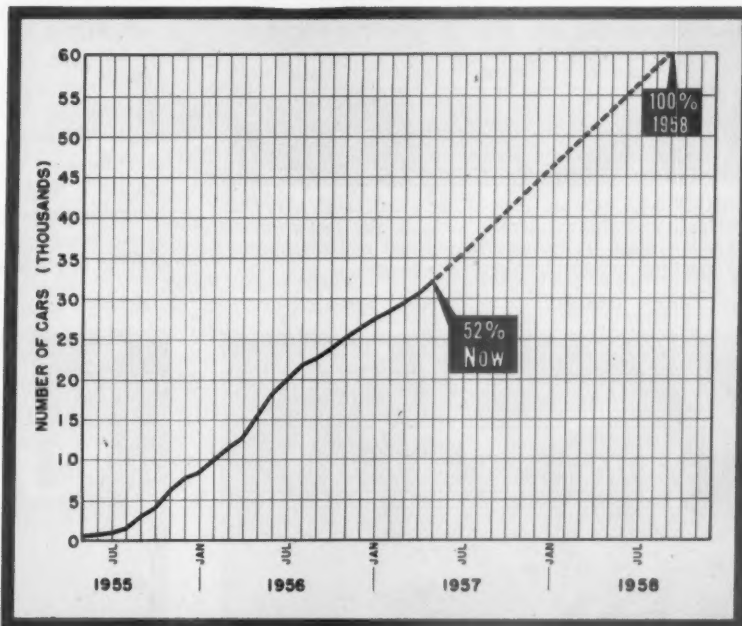
Hot box reduction across the years has been accomplished with costly journal box servicing. "If the conventional plain bearing is to continue to be standard for American railroads," Mr. Pond warned, "we must find ways to reduce this servicing cost."

Trial installations of two types of lubricating pads late in 1954 proved so encouraging that early in 1955 the N&W began to apply these devices in large numbers to new and existing cars. They have performed 2.5 times better than cars with conventional waste packing, and have required less servicing. But these lubricators are not "a cure-all" for hot boxes," according to Mr. Pond.

"Lubricating pads available today can and should be greatly improved," he asserted. Difficulties include the inability of some designs to wick AAR car oil in sufficient quantities during cold weather, and a reduction in their general wicking ability as they grow older and become contaminated with dirt. Currently, oil companies are working to develop a car oil which will wick better in winter months and at the same time have the lubricating quality and load-carrying characteristics of present oils. In dumping cars the N&W has had difficulty with loss of oil from boxes (see next page).

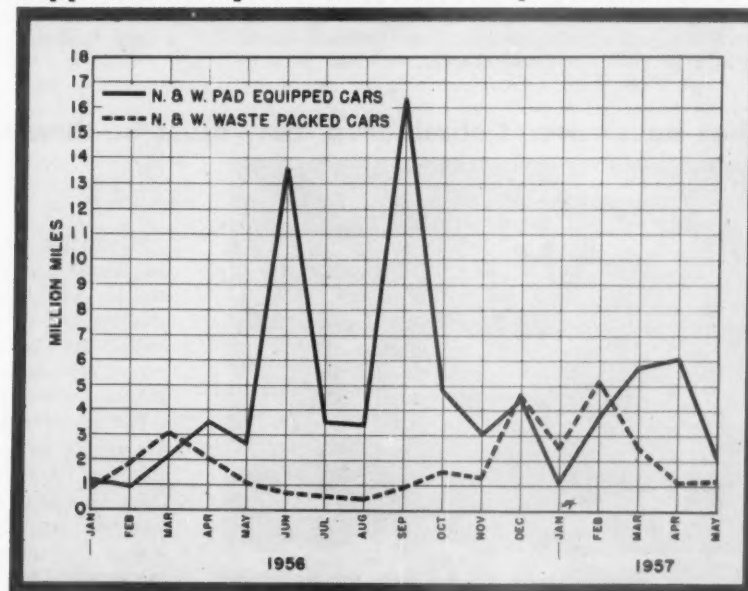
At present this road is fitting up five hundred 70-ton hoppers with controlled-clearance bearings, lubricator pads, journal stops and 50-in. radius wedges. The stops will position the axle so that an effective dust guard seal can be used, and a seal for the front of the box will also be utilized. Decreasing the wedge radius is expected to give better load distribution on the journal.

**"All of our revenue freight cars . . ."**



STARTING IN FALL of 1954, N&W has steadily increased the number of lubricator pads on its freight cars. Nine types of pads are in use on the 32,000 cars equipped. All N&W freight cars should have lubricators by fall of 1958.

**"Approximately 2.5 times better performance . . ."**



PAD-EQUIPPED CARS averaged 3,000,000 miles per hot box, waste-packed cars 1,250,000 miles, in 17-month period. In winter, waste-packed car mileage per hot box topped pad cars in some months, but was far behind in summer.

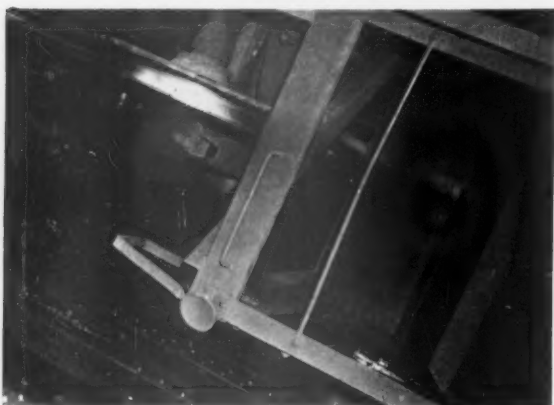
## "Much better seal" must be found for front and rear of journal box . . .



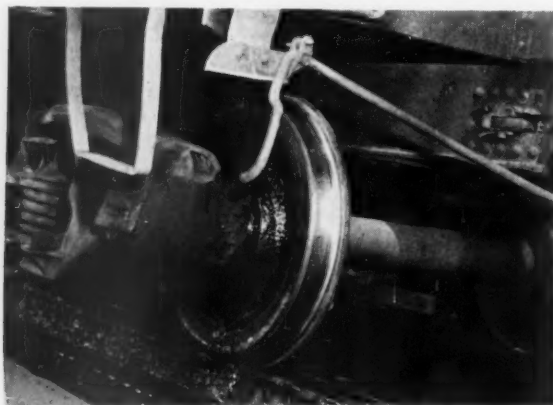
**OIL FILM** 2-in. wide on tread of car wheel came past dust guard and was thrown across plate to the tread during normal operation. It spreads to the rail and complicates train handling particularly on heavy grades.

"Another development . . . greatly needed, and one which will pay rich dividends, is a good seal at the back of the box at the dust guard opening," according to the Mechanical Division chairman. He went on to report that to retain oil in boxes, particularly on pad-equipped cars on rotary dumpers, an improved seal must be found for the front of the journal box too.

Improvements in seals and lubricating arrangements are all parts of but one problem which confronts railroads in their struggle to receive a share of future traffic. "Progress and research go hand-in-hand," concluded Mr. Pond. "The progress we will make tomorrow largely depends upon research we are doing today. This should point the way to higher standards of service, improved methods and procedures, and better designed rolling stock. If we pursue such a course, the future of the railroads will be bright and encouraging."



**ON ROTARY CAR** dumper the inability of the lid to retain oil in the box of this hopper car is a factor in increasing N&W car oil consumption. Mr. Pond pointed out that this is a problem for roads handling ore and coal.



**JOURNAL BOX** on the opposite end of the same axle lost its oil through the dust guard while the car was on the rotary dumper. The speaker emphasized that the need for better seals was true "Particularly on pad-equipped cars."

## If hot boxes aren't eliminated, they must be detected . . .



**HOT BOX DETECTOR** on the N&W is one of several types on the market according to road's GSMP. This installation is for trains moving in one direction only, and "will accurately and reliably detect hot boxes on trains traveling from 8 to 70 mph."

"Until that time when hot boxes can be reduced to the lowest possible minimum," warned Mr. Pond, "the use of some type of hot box detection device that is accurate and reliable will be of great value to the railroads." He went on to describe the installation and operation of one such device at the entrance to one of the important N&W yards.

Devices of this type (Railway Age, April 1, 1957, p. 47) employ infrared pyrometers which electronically actuate chart recorders that can be located up to four miles from the detectors. "The device is reliable and extremely sensitive. So far its performance has been satisfactory with a few minor adjustments," according to the AAR Mechanical Division chairman.

At the recent superintendents' convention in Chicago another N&W officer said that the device has never failed to detect a passing hot box.

## New Specialized Gear for Piggyback

Any new operation which starts with conventional, existing equipment soon develops specialized gear for the specific job—and piggyback is no exception.

Latest device to leave the drawing board and enter the pilot-model stage is a high-mobility "Trailer Spotter," developed by Four Wheel Drive Auto Company, Clintonville, Wis.

Designed for maneuverability in congested areas, the "Trailer Spotter" features a driver's seat which rotates around a center steering column—thus enabling the driver to face in the direction of movement at all times. Two sets of accelerator and air brake pedals are provided, one for forward operation, the other for reverse.

A single steering wheel guides the front wheels, with simultaneous or separate steering of rear wheels provided by a control lever on the steering column. Both steering controls are power assisted.



"TRAILER SPOTTER" in action, backing truck trailer onto flat car in tests at Chicago. Cab offset permits driver to see alongside trailer during

Two special features—a hydraulic elevating fifth wheel and a rear cab door—permit the driver to hook up, move and detach trailers without getting down from the cab. The cab itself is offset to the left of the engine, to permit the driver to see back alongside the trailer.

Power is transmitted to the axle

backing operation; seat swivel has driver always facing direction of travel.

beneath the fifth wheel to drive the rear wheels. Four-wheel drive is available as an optional feature and a single-axle drive can be converted to four-wheel drive by changing the front axle and installing an extra propeller shaft. FWD's "Trailer Spotter" is rated, according to the manufacturer, for kingpin loads up to 26,000 lb.

## Railroading



## After Hours with

*Jim Lyne*

**NON-COLLEGE MEN OVERLOOKED?**—A railroader living in Auburndale, Mass.—Walter H. Walker, Jr.—wants to know whether I think non-college men in railroad employ may not deserve a better chance than they usually get, to qualify for training as officers.

He says: "I respect a college background—the ability to reason, and the polish and connections it provides—but the Army combs the ranks of enlisted men for officer material. On some railroads an 'enlisted man' who aspires to promotion is looked on as presumptuous."

How would you answer Mr. Walker's question? I think the railroads ought to hire all the good college men they can get, and find openings for, and that they should also constantly "comb their ranks" for equally able, or more able, "enlisted men." I'd say it is a mistake to overlook any likely source of superior talent.

With all the facilities for adult education now available in this country, there's not much reason why anyone can't get, at least, the educational equivalent of a college degree (and often the degree itself) if he really wants it.

**COMPANY NAMES**—One of the many attractive things about railroads is the names they bear—some of them anyhow. I remember being at San Bernardino station late one evening, back in the steam days just before the war, and being newly impressed by the big UP and Santa Fe locomotives moving around the yard, with their tenders about a block long, bearing railroad names as big as the side of a house. This is one of those random memories which stick with you.

The names of both these railroads, I got to thinking,

call to mind a lot more than the look and activity of either railroad, just as a present-day carrier. The name Union Pacific has historical meaning that practically everybody knows about. Then there's that great big name, Santa Fe—with its origin in religion, and the pictures it calls up of southwestern Indians and early Spanish colonizers. No company making automobiles or airplanes or anything else that I can think of can match the imagination of a whole long list of railroad names.

**RAILROAD ALUMNI**—There are two railroad "alumni" whose names occur to me (and there are many others) whose successful careers outside the railroad business are an answer to people who suspect the railroads of not nourishing the talent that some other industries do. One of these men is John Emery, who established Emery Air Freight and developed it into a substantial enterprise. The other is Arthur Genet, the dynamic head of Greyhound Lines.

John Emery was formerly a colleague of mine here at Railway Age and for a good many years thereafter was with Railway Express—where his experience, and contact with shippers, gave him his conviction of the commercial value of reliability and speed. Arthur Genet, of course, was traffic vice-president of the C&O, and prior to that a successful forwarder executive.

There are those who might contend that Messrs. Genet and Emery got into other businesses before they attained full stature—but that isn't a valid objection: Nobody would turn to the railroads for high-caliber men unless railroading were a kind of business that employs and develops high-caliber people.





SECOND FLOOR and roof slabs in finished building project outward from walls to shade windows from sun.

## SAL Needed an Office Building Fast

No railroad, up to now, has used the lift slab method to put up buildings. The Seaboard tried it, at Jacksonville, Fla. Result: A \$500,000 division office completed in 10 months, saving time and money in the process.

One morning recently, a concrete roof slab for the Seaboard Air Line's new division-office building at Jacksonville was lying on top of two other slabs at ground level. By afternoon of the same day, the 8¾-in. roof slab had been raised more than 20 ft and was being welded in place to steel-pipe columns. Later the second-floor slab was raised in the same manner. The "lift slab" method of building erection was thus used for the first time in the railroad field.

"We adopted the method as an experiment," says J. C. Williams, engineer of buildings of the SAL. "If we can believe all we read and hear, this construction method offers savings in time and labor. We had urgent need for the new division office at Jacksonville and the sooner it could be built the sooner we could occupy it. We know it won't cost more than the poured-in-place type of construction and we hope it will be less. Also, it should be easy to maintain."

The new office building was built at a cost of about \$500,000 at McDuff and Warrington streets in one corner of the road's shop property. It is

about 45 by 262 ft, with a wing approximately 45 ft by 63 ft. Work was begun on July 17, 1956, and the building was occupied on May 18, 1957.

The building has no basement. On its first floor it houses the road's division traffic, operating, treasury, law, property protection, purchases and stores, and communications and signal departments. It has in addition a large assembly room (seating 104 persons), snack room, CTC-equipment room and an air-conditioning equipment room. On its second floor are the division operating, accounting, engineering, track and bridge and building departments, as well as space for the CTC machines and dispatchers, mail and duplicating service and file storage. It is entirely air conditioned.

### Features of Design

The CTC equipment is housed in the wing, and because of its importance to the operation of the division, a brick fire wall was constructed to isolate it from the remainder of the

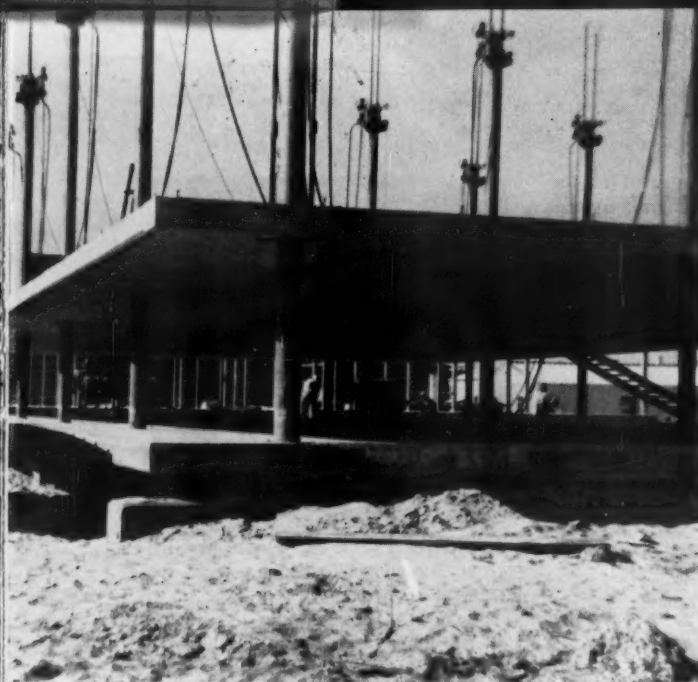
building. A stand-by generator also was provided so that, in the event of a power failure, CTC operation will not be interrupted for long.

In general, the columns are spaced 20 ft apart in three rows for the length of the main building and the wing. In the main structure the rows were spaced so as to permit a center corridor to extend the full length. The columns are made from 8-in. extra-strong steel pipe and are set on concrete piers supported on pile foundations. Grade beams also were constructed in the fill between columns.

The building was constructed by the Youtz-Slick lift slab system described on the next left-hand page. The ground-floor slab was cast 5½ in. thick and over this a 2½-in. topping was applied and carefully surfaced.

The second-floor slab was made 9 in. thick. Galite, a lightweight aggregate, was used in making the concrete for this slab, which was designed for a 60-lb live load and a 20-lb partition load. Conventional aggregate was used in the concrete mixtures for





**LIFTING** of roof-slab is mounted on columns by jacks.



**WITH SLABS** in final position the walls are constructed.

## ... Lift Slab Technique Did the Job

both the ground-floor and roof slabs.

Because of the large floor area of this building, it was decided to cast the second-floor and roof slabs in four sections, using not more than 15 lifting jacks to a section. This method permitted the men to work continuously on one section after another. Openings were left between the sections so they could be handled independently of each other, although the reinforcing steel extended into these strips. After the slabs had been

raised to their final positions, the openings were closed by setting up forms and pouring the concrete in place. Also, all columns were then filled with concrete.

After being raised to its final position, each slab was fastened permanently in place by welding four shear blocks to each column under the lifting collars.

These shear blocks were rounded to the same curvature as the columns. The collars also were centered at each

column by driving steel shims between the collar openings and the columns.

Three-way ducts for carrying telephone, electric power and intercommunication systems were embedded in the floors at the time the reinforcing steel was placed.

Air-conditioning ducts were installed in the corridors and hidden by lowering the ceilings. The outlets from these ducts were located opposite the windows in the exterior walls



**REINFORCING STEEL** in place for second floor slab. Note three-way ducts for carrying telephone, electric power and intercom systems, embedded in concrete.

**SLABS** are held in final position by shear blocks welded to columns beneath lifting collars.



so that room partitions could be moved as desired without interference. A cooling tower for the air-conditioning system was constructed above roof level. Heat distribution is made through the same ducts used for air conditioning. Heat is obtained from steam supplied by the shop plant.

In commenting on this method of erection, Mr. Williams said: "It requires a lot of work in designing such a structure, as the lifting stresses also must be given consideration. The building department at Jacksonville has one of the most rigid building codes to be found along our railroad.

Before we received approval of the design and obtained a permit to proceed, we submitted almost 300 sheets of design details which they carefully checked."

The structure was constructed by Paul Smith Construction Company, Jacksonville, and the slab lifting was done by Southeastern Lift Slab, Inc., of Atlanta, which is licensed by Lift Slab, Inc., to use this method of construction. It was designed under the general direction of W. D. Simpson, chief engineer of the SAL, and under the direct supervision of J. C. Williams, engineer of buildings.



JACKING operation was controlled from this console.

## Here's the Lift Slab System

The lift-slab method is known as the Youtz-Slick system of construction after its inventors, who placed the patents and responsibility for further development of the system with the Institute of Inventive Research, a non-profit research organization in San Antonio, Tex. Building contractors are licensed to employ this method of construction through Lift Slab, Inc., San Antonio.

Basically, the lift slab method consists of pouring a reinforced-concrete floor, and the upper floors and roof slabs one on top of the other at ground level, and then progressively raising them by hydraulic jacks to their final positions, where they are permanently fastened to columns. Although the structural system usually employed consists of concrete slabs and steel columns, other materials may be used, such as concrete columns (precast or poured in place), fabricated steel floors, and wood floor systems and columns.

The equipment required for this method includes a hydraulic pumping unit, a number of hydraulic lifting jacks and a hydraulic control panel. Lifting collars are embedded in each slab at each column location.

**Preliminary Steps**—The usual procedure for the lift-slab method of erection is as follows:

After the building site has been cleared and graded, the footings are placed, followed by the piers, beams, etc. Any fill required under the ground slab is then placed and properly graded.

The column base plates are then set in place on the pedestals and brought to correct elevation with leveling nuts on the anchor bolts. The columns are then erected and carefully plumbed vertical.

The reinforcing steel for the ground-floor slab is placed and tied. Also, any conduits required are inserted between the bottom and top mats of reinforcing. Carpenters then construct the side forms for the ground-floor slab, which also serve as screens, and the concrete is poured.

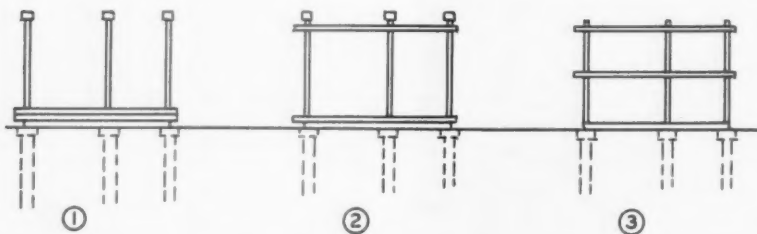
Since the upper surface of the ground slab also serves as the bottom form for the first lift slab, it is important that it be poured and surfaced accurately. The concrete of the ground slab also must be cured properly to prevent any cracks or spalling from taking place, as these will show up in the soffit of the first lift slab.

After at least 18 hours, when the ground-floor slab has taken a firm set, a separating medium having a paraffin or wax base is brushed or sprayed on the upper surface of this slab to prevent the concrete for the first lift slab from sticking or bonding to it.

The first lift slab, which will form the second floor of the building, can now be poured. Lifting collars are placed around each column and the side forms, reinforcing steel, piping, ducts, etc., are placed on top of the ground-floor slab, after which the second-floor slab is poured. The same procedure is followed for the other floor and roof slabs.

**How Slabs Are Erected**—When all slabs have been cured for a minimum of 14 days, a hydraulic jack is placed on top of each column. Vertical, full-threaded lifting screws are connected to the hydraulic jacks and into threaded bushings set in the lifting collars of the top slab. Each jack is connected by hydraulic hose to a console where hydraulic pressure is supplied by a power unit and where the operator can read the amount of rise at each column. Through valves, the operator controls the amount of rise at each jack so that the slab is raised uniformly.

After an initial raise of about 1/4 in., when the top slab has broken loose from the one directly below, measurements are taken at each column and adjustments made to assure that it has reached the same elevation at all points. The lifting operation is then resumed until the slab has reached its design elevation. The rate of lift is from 4 to 5 ft per hr. Steel blocks are then welded to the steel columns immediately below the lifting collars to serve as permanent supports for the slab. The vertical lifting screws are then connected to the lifting collars of the next slab to be raised, and the procedure is repeated until all slabs are in place.



**FOOTINGS**, piers and grade beams are placed first, after which the columns are erected and carefully plumbed vertical. The ground-floor slab is poured and then, in successive layers over it, the slabs for the upper floors and roof are poured. Fig. 1 shows work at this stage and hydraulic jacks mounted on columns. Roof slab is then raised (2) followed by raising of upper-floor slab (3).

# Public Must Prop Up Commuter Service

ICC told that community assistance must be forthcoming if service is to be maintained on present basis.

Three principal passenger-carrying railroads have advised the Interstate Commerce Commission they cannot maintain commutation services on the present basis without tax relief or public assistance of some kind.

The warning was in presentations made by the Pennsylvania, the New York Central and the New Haven at the first public hearing conducted by the commission in connection with its investigation of the passenger deficit. The hearing was before Examiner George B. Vandiver in Washington, D. C., from June 18 to 21 (Railway Age, June 24, p. 10).

The PRR presentation was made by its vice-president of research and development, Walter W. Patchell. He said that, without community and public help, railroads cannot be expected to maintain and give good suburban service indefinitely, "in view of the problems and competition they face."

Mr. Patchell cited recent studies in New York, Philadelphia, Los Angeles, San Francisco, Toronto, and southern New Jersey which have all produced recommendations for greater dependence upon, and public assistance to, mass transportation systems. He emphasized the effect of suburban development and the private automobile on the passenger deficit and what he considers the corresponding obligation of the public with respect to commutation service.

"Practically every one of these

studies," he said, "has resulted in a considered conclusion that rail commuter services are an essential and advantageous part of the transportation systems of these areas . . . If rail commutation services are in fact essential, then the public must begin soon, in one fashion or another, to make it possible for us to provide good service at a break-even basis. If they are in fact not needed, we should be permitted and in fact ordered, to go out of the commutation business at once."

The NYC presentation was made by Ernest C. Nickerson, vice-president—passenger sales. He complained that regulatory bodies, under public pressure, have required railroads to maintain heavily losing services without permitting them to charge fares that would meet their costs. As he sees it, there are "two realistic answers," as follows:

1. Railroad management must be given the same kind of freedom to manage its business that is customary with other privately owned businesses in this country which do not have a monopoly. Rapidly changing economic and transportation conditions in this country compound this need; continuous rapid adjustment is essential.

2. If the public is not willing to give a railroad freedom to manage its suburban business, including withdrawals where sound business judgment dictates, then the public must be prepared to grant relief, if it sincerely

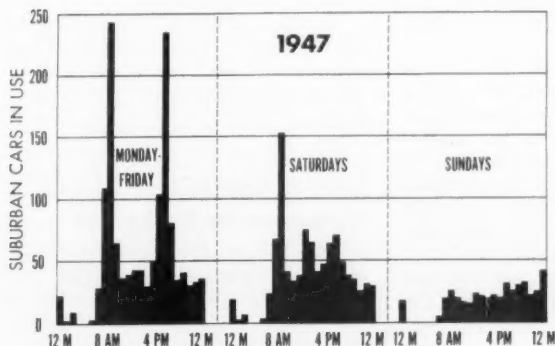
desires its continuation. This could come in the form of tax relief or subsidy if private operation is to continue, or public agencies and authorities could accept the responsibility of taking over and operating suburban railroad service.

"The public," Mr. Nickerson continued, "has learned to accept subsidy from the government in the case of some other forms of transportation; with railroad passenger service it is subsidized now, except that this subsidy comes principally from the freight shipper and/or railroad investors. If the present regulatory philosophy is to continue, it would seem fair and just that the subsidy come from the communities and areas directly benefiting from the service."

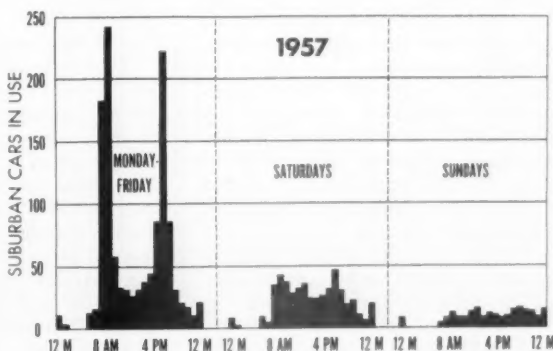
"I am not prepared to insist that one solution is the only right one and that the other is wrong. I say only that these are the possible fundamental solutions; we must go one way or the other . . ."

The New Haven presentation was made by its assistant comptroller, Hollis H. Coyle. He first expressed his view that the unsatisfactory financial results of suburban operations cannot be improved by increasing patronage. He then proceeded to make this comment:

"Solution of the suburban problem is a difficult one. If it cannot be solved by increases in fares which the public can afford to pay, then some other means must be found if privately operated railroads are to continue to furnish this necessary service. Other means might take the form of relief from onerous taxes or even direct financial support commensurate with the value of the service. Unless some



ONE REASON FOR MONEY LOSSES on railroad suburban services is pointed up by these charts showing equipment utilization on the Pennsylvania's Philadelphia commuter lines. More than 240 cars are needed to handle rush-hour loads on weekdays, but 90% of them are idle during the remaining hours and on weekends. Comparison



with 1947 shows an increase in rush-hour traffic while off-peak business has declined sharply, thereby increasing the costly idle time of equipment and crews. Charts were presented to the ICC inquiry into passenger-service deficits by Walter W. Patchell, PRR vice-president of research and development.





**THROTTLING OF RAILROAD** passenger business is helped by super-highways built at taxpayers' expense. Competition between highways and railroads is dramatically illustrated by this picture of the New York Central's Ardsley, N.Y., station. Station is so surrounded by highways, offering alternate routes to New York

City, that railroad commuters must drive nearly a mile out of their way just to reach it. Saw Mill River Parkway is in the background, and the New York State Thruway is in the foreground. Picture was submitted as part of testimony of the railroad's officers before the ICC hearing on the passenger-deficit problem.

solution is found, railroads cannot continue to provide the service in the face of spiraling costs."

These statements were made in response to the commission's request for evidence relating to the effect of suburban development and the private automobile on the passenger deficit, and political and economic pressures exerted upon railroads to maintain commutation service and the corresponding obligation of the public with respect to such service.

Those are two of the 15 items designated by the commission as subjects for the inquiry (Railway Age, Apr. 15, p. 11). The June 18-21 hearing also dealt with one other item—what railroad management has done and plans to do to improve equipment and services. Originally scheduled for consideration at that hearing but subsequently postponed was a fourth item—railroad experience in discontinuing trains and abandoning lines, stations and agencies.

Several additional railroad men appeared to testify on one or the other of the three subjects considered.

Meanwhile, the commission's Bureau of Transport Economics and Statistics has issued "A Brief History of the Separation of Railroad Operating Expenses Between Freight and Passenger Services." It is Statement No. 577. As part of the passenger-deficit inquiry, the commission has under

consideration the matter of revising these expense-separation rules.

The matter will be considered at a further hearing in Washington July 23, the commission announced in a June 21 notice. As set out in the commission's list of subjects, and in the notice, the item reads as follows:

"Historical development of the commission's present rules governing separation of operating expenses between freight and passenger-train service; investigation of 'direct charges' and allocation of common expenses required by such rules; whether, and in what manner and extent, such rules should be changed."

The commission has already received some views of interested parties on this subject, and it summarized them in an appendix to the notice. The position of the Association of American Railroads is that present rules produce substantially accurate results for the purpose of determining the expenses of actually performing services but they are not designed to and do not determine the costs which would be avoided if passenger train service were discontinued.

The AAR does feel, however, that some of the rules are written in language so broad as to leave room for different interpretations and practices. It would have the commission

issue specific interpretations to secure uniform application.

The National Association of Railroad and Utilities Commissioners takes the position that there is no legal requirement that the commission obtain a separation of passenger and freight expenses or recognize different departments of operations for rate-making purposes. The separation, NARUC also says, has resulted in misuse and misunderstanding of the passenger "deficit," and the commission should consider the justification for the rules and the need for their continuance.

The notice also announced that the next hearing after the sessions beginning July 23 will be held September 23, also in Washington. It will deal with that item on the commission's list which calls upon the railroads to furnish a cost study showing what part of the passenger deficit is attributable to the various kinds of passenger-train service.

Copies of the cost formula and cost determinations obtained by its application must be furnished by the railroads to interested parties 20 days in advance of this September 23 hearing. Other parties should make like service of any formula they desire to present, the notice also said.

## SP Starts Ticket Sales Tie-up with Trans World

Airline tickets for international flights are now obtainable at Southern Pacific station ticket offices.

The road last week began a ticket-selling tie-up with Trans World Airlines in 237 SP towns. Previously, SP had made similar agreements with United Air Lines and American Airlines, but the TWA deal marks SP's entry into the international field. Domestic ticket sales also are included in the TWA agreement.

Southern Pacific officers termed the new service "a good example of cooperation between two forms of transportation to better serve the traveling public."

## Senate Committee Okays Compromise Brake Bill

The Senate Committee on Interstate and Foreign Commerce last week voted to report favorably to the Senate a compromise version of S.1386, the bill to authorize the Interstate Commerce Commission to prescribe rules for installation, inspection and repair of train brakes.

The proposed legislation in its original form was recommended by the Commission and supported by



railroad labor organizations. The railroads opposed it.

The compromise version contemplates that the commission would adopt the power-brake rules and regulations of the Association of American Railroads. The committee issued a statement saying it had been advised that this would be satisfactory to the commission and to the labor organizations. Continuing to suggest that it "should be reassuring" to the railroads, the statement then added:

"The committee wishes to make it clear that in any future change of the said rules the commission should confer with and heed the advice of the association . . . with respect to the minimum standards of installation, inspection and maintenance of power brakes. The committee understands that the association and the ICC have carried on a pleasant and rewarding relationship in the handling of rules for the transportation of explosives. A similar relationship is contemplated in the promulgating and revising of rules on power brakes."

### Air Fares Hold Price Line While Competing Fares Rise

Average revenue per passenger-mile of the railroads rose 39.6% between 1942 and 1956, when the comparable air-line average increased less than one per cent.

Railroads and air-line averages for 1956 were 2.68 cents and 5.32 cents per passenger-mile, respectively. They compared, in turn, with 1942 figures of 1.92 cents and 5.28 cents.

This was shown in "Transport Economics," published by the ICC's Bureau of Transport Economics and Statistics. It was also shown that the 1942-1956 increase in average revenue per passenger-mile of Class I intercity bus lines was 28.5%, from 1.65 cents to 2.12 cents.

The rail and air figures are over-all averages, reflecting yields from all classes of fares. The "air coach" average for 1956 was 4.29 cents.

The railroad average on parlor and sleeping-car business was 3.39 cents, and the Pullman Company got an average of 1.38 cents in addition. The average for rail coach business, excluding commutation, was 2.56 cents. The first-class average was up 8 mills and the coach average rose 9 mills from the comparable 1955 figures.

Showing the trend of revenue per passenger-mile on the basis of the over-all rail average as 100, the ICC bureau calculated that the index number for air lines had dropped from 1942's 275 to 1956's 198.5. The bus index was down from 85.9 to 79.1.



### Hinged Bulkheads Give Car 'Dual Personality'

New on the Rock Island is this 60-ft flat car (center, loaded with lumber), with hinged bulkheads at each end. With bulkheads down, the entire car floor is available for conventional loading; with bulkheads raised, lumber and similar loads can be carried.

Double-duty features of the car are pointed up by a recent run to the west coast — bulldozers westbound with bulkheads down, lumber eastbound with bulkheads up. Rock Island built the car at its Blue Island shops as part of a larger car order.

## 1957 Outlays Reaching for Record

Class I line-haul railroads this year now expect to make gross capital expenditures in excess of \$1,407 million.

Estimates on that basis have been submitted by 107 of the 112 Class I line-haul roads to the Interstate Commerce Commission's Bureau of Transport Economics and Statistics. Expenditures of the five other roads might swell the years' total to a point where it would exceed the all-time high of \$1,414 million reported for 1951.

The 112-road total for 1956 was \$1,231 million.

Meanwhile, however, the bureau noted that actual expenditures for March, latest month for which actual figures were available, reflected a drop of 1.7% below March 1956—\$116 million compared with \$118 million. The accompanying table, from the bureau's "Transport Economics," compares 1956 figures with 1957's first-quarter "actuals" and estimates for its other three quarters.

| Period  | Number<br>of<br>roads |           |           |           | Per cent of total |           |
|---|-----------------------|-----------|-----------|-----------|-------------------|-----------|
|   |                       | Road      | Equipment | Total     | Road              | Equipment |
|   |                       | Thousands | Thousands | Thousands |                   |           |
| Actual 1956:                                    |                       |           |           |           |                   |           |
| 1st quarter .....                               | 112                   | \$73,318  | \$224,272 | \$297,590 | 24.6              | 75.4      |
| Year .....                                      | 112                   | 406,583   | 824,466   | 1,231,049 | 33.0              | 67.0      |
| Actual 1957:                                    |                       |           |           |           |                   |           |
| 1st quarter .....                               | 112                   | 84,000    | 258,344   | 342,344   | 24.5              | 75.5      |
| Estimated 1957:                                 |                       |           |           |           |                   |           |
| 2nd quarter .....                               | <sup>1</sup> 107      | 114,704   | 283,494   | 398,198   | 28.8              | 71.2      |
| 3rd quarter .....                               | <sup>1</sup> 107      | 122,073   | 273,100   | 395,173   | 30.9              | 69.1      |
| 4th quarter .....                               | <sup>1</sup> 107      | 106,807   | 164,688   | 271,495   | 39.3              | 60.7      |
| Total:  |                       |           |           |           |                   |           |
| Year 1957, actual<br>and estimated .....        | ..                    | 427,584   | 979,626   | 1,407,210 | 30.4              | 69.6      |
| Per cent of increase:                           |                       |           |           |           |                   |           |
| 1st quarter 1957 vs. 1956 ..                    | ..                    | 14.6      | 15.2      | 15.0      | ..                | ..        |
| Year 1957 vs. 1956<br>actual and estimated .... |                       | 5.2       | 18.8      | 14.3      | ..                | ..        |

<sup>1</sup> Estimate not furnished by five roads.

## Engineers Reject Pattern Agreement

General Chairmen of the Brotherhood of Locomotive Engineers, meeting in Chicago, have rejected the railroads' proposal that they accept the so-called pattern settlement for the industry.

In commenting on the action, Grand Chief Engineer Guy L. Brown said: "As the senior craft, the most highly skilled craft, the one charged with the most responsibility, engineers are entitled to more."

The three-year moratorium feature of the pattern also was sharply criticized by Mr. Brown and the general chairmen. Other unions have settled on a basis of a 26.5-cent package over a three-year period, including a three-year moratorium on increases or decreases in wages.

Mr. Brown said detailed procedures for pushing wage goals will be worked out as soon as possible, but that

general chairmen were free to progress other important desired contract changes on individual lines. The engineers said many such items are pending on roads across the nation, having been held in abeyance pending national wage negotiations.

In a notice served last fall, before the start of negotiations, the engineers asked for a 15 per cent increase in basic wages and arbitraries, stressing that "skill differentials" should be restored.

Of the major labor groups, only the BLE and the American Train Dispatchers Association have not negotiated contracts with the railroads. The dispatchers' wage talks are still in negotiation.

Comment from railroad or Mediation Board spokesmen on the BLE action was not available as this issue went to press.

## Commuter-Service Subsidy 'Inevitable'

It seems inevitable that commuter railroads will have to get community support if they are to survive, says T. F. Perkinson of the General Electric Company's transportation engineering department.

Mr. Perkinson, addressing a session on suburban electrification at last week's summer general meeting of the American Institute of Electrical Engineers in Montreal, said the "economic problems that confront railroads in their operation of commuter service are essentially and basically the same as those associated with op-

eration of public transit systems in general."

"Inadequate fare structures, mounting operating costs and declining patronage have brought the rail-commuter business to the point where it is questionable that its survival as non-subsidized, private enterprise can reasonably be expected."

"It is generally agreed," Mr. Perkinson continued, "that metropolitan-area transit must eventually be brought under unified policy direction and management if effective transportation is to be provided in such areas;



## Frisco Opens New Yard

First car is shown rolling over apex of the hump in the Frisco's \$10½-million Tennessee Yard at Memphis. This completely automatic electronic classification yard enables the Frisco to classify two to three cars per minute, with a substantial time saving to shippers. The yard's 50 classification tracks can handle 2,140 cars.

such direction and management may permit of private ownership and operation of all or part of the transit facilities, but it appears inevitable that community subsidization will become an essential part of the business, either in forms of subsidies to private enterprise or through ownership and operation of the facilities and equipment by the communities involved."

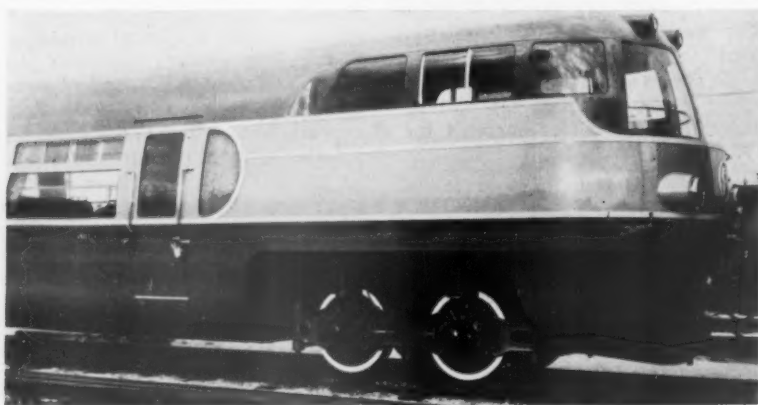
## No 'Eggs-in-1-Basket' Policy for the BAR

Already branched out into two non-railroading activities in the last two years, the Bangor & Aroostook is exploring additional avenues of potential diversification.

This was brought to light with the personnel switch announced at Bangor last week in which Curtis M. Hutchins resigned as president and was succeeded by W. Gordon Robertson (see People in the News, p. 44).

Mr. Hutchins said his resignation (he continues as chairman of the road), will enable him to devote more time to the BAR diversification program and free him to explore new areas of investment.

In October 1955, the road purchased the Avis Rent-A-Car-System franchises in Maine and, later, in much of New Hampshire and Vermont. Recently, BAR also purchased a substantial amount of stock in the St. Croix Paper Company, of which Mr. Hutchins has been a director.



## New French Car to Take Curves Out of Train Rides

Curves taken at high speeds are said to go practically unnoticed by passengers in this new coach, the "Pendulum," being tested by French railroad technicians. Seating section of the "Pendulum" hangs like a hammock between two high suspension points at each end of the car. Point

of suspension above wheels is about at the height of passengers' heads. In the prototype test model (above), a swing of 18 degrees to each side has been allowed, counteracting the effect on passengers of lateral pulls of centrifugal force. The test car seats 32 and is 75 ft long.

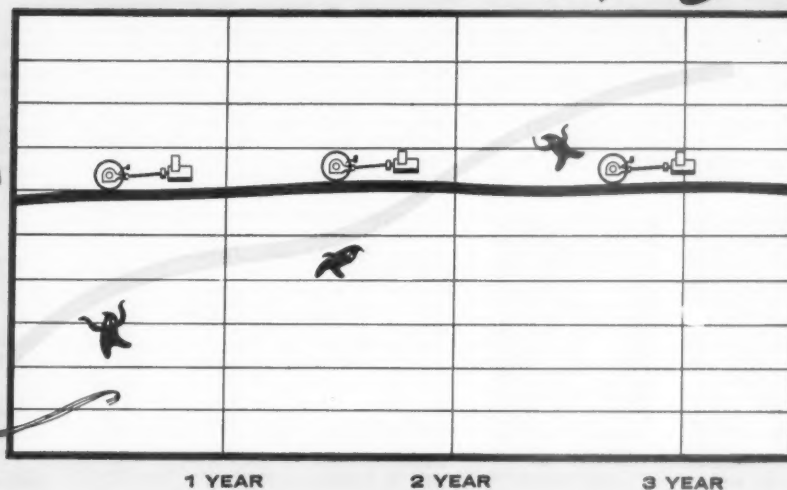
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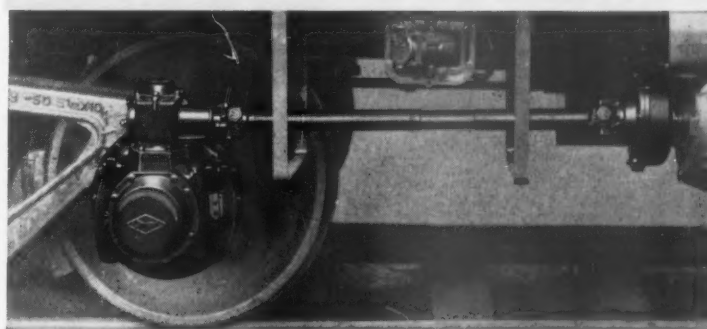
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# People in the News

## Robertson BAR Chief; Hutchins Still Chairman

W. Gordon Robertson has been elected president of the Bangor & Aroostook, effective July 1. He succeeds Curtis M. Hutchins, who resigned as chief executive officer but continues as chairman of the board.

Mr. Robertson, a BAR director since 1953, and more recently a member of the executive committee, has been a leader in the Maine potato industry as president of Beaverbrook Farms, Inc.

Mr. Hutchins has been a BAR director since 1945. He was named president in 1948 and assumed also the board chairmanship in 1952.



William M. Moloney  
AAR



J. Paull Marshall  
AAR

**ASSOCIATION OF AMERICAN RAILROADS.**—In Railway Age, June 24, p. 32, captions were reversed, because of a printer's error, under pictures of William M. Moloney, general solicitor, and J. Paull Marshall, assistant to vice-president—legislation, Washington, D. C.

**BALTIMORE & OHIO.**—W. D. Wilbur, division freight agent, Cincinnati, appointed assistant general freight agent, Pittsburgh, succeeding E. E. Mountcastle (Railway Age, June 17, p. 63). H. R. McCorkle, division freight agent, Dayton, Ohio, succeeds Mr. Wilbur at Cincinnati. P. W. Nutley, division freight agent, Indianapolis, transferred to Dayton. E. R. Cross, district freight representative, Atlanta, succeeds Mr. Nutley at Indianapolis and is replaced by J. E. Parker. H. E. Neu named assistant general freight agent, Baltimore, succeeding C. J. Curran, retired.

**CANADIAN PACIFIC.**—D. C. Forbes appointed district supervisor, integrated data processing, Manitoba district, Winnipeg, Man.

**CHICAGO & NORTH WESTERN.**—Alvin M. Handwerker, assistant to comptroller, appointed auditor of disbursements, Chicago, to succeed William G. Burns, retired (Railway Age, June 17, p. 63).

John D. Boyle and Robert R. Tate appointed division freight and passenger agents, Casper, Wyo. and Racine, Wis., respectively.

**ILLINOIS CENTRAL.**—Harry R. Koonce, trainmaster, Chicago, appointed superintendent of the East St. Louis Terminal, succeeding Robert O. Bodell, transferred to the Chicago terminal. Joe A. McDaniel, assistant trainmaster, Markham Yard, Chicago, replaces Mr. Koonce.

**LOUISVILLE & NASHVILLE.**—Jurisdiction of the communications department has been transferred from superintendent of transportation to chief engineer. P. P. Ash, signal engineer, Louisville, Ky., appointed superintendent communications and signals. H. W. Burwell, telephone engineer, promoted to communications engineer, communications and signal department. M. R. Williams, signal supervisor train control, transferred to communications work with the title of electrical engineer.

**MISSOURI PACIFIC.**—M. F. Martin appointed division trainmaster, DeQuincy division, DeQuincy, La., succeeding E. N. Malone, retired.

J. C. Morrow, telephone engineer, Gulf district, Houston, Tex., appointed assistant superintendent communications, Gulf district there, succeeding Richard H. Richter, retired (Railway Age, June 24, p. 32). E. P. Mailloux named to replace Mr. Morrow. W. L. Fagan, trainmaster, McGehee, Ark., appointed superintendent, Illinois division and Missouri-Illinois Railroad, east of Mississippi River, St. Louis, to succeed R. W. Parker, transferred to Kingsville division, Kingsville, Tex., to replace A. F. Judd, retired. J. M. Toler, trainmaster, Little Rock, Ark., succeeds Mr. Fagan, and in turn is succeeded by V. G. Dyer, transferred from Memphis division, Wynne, Ark. R. L. Custer succeeds Mr. Dyer. J. L. Ragland named trainmaster, Missouri division, Poplar Bluff, Mo., succeeding W. C. Encminger, promoted to supervisor of passenger service, St. Louis.

**NORFOLK & WESTERN.**—B. H. Maben, assistant superintendent, Radford division, Roanoke, Va., transferred to the Pocahontas division, Bluefield, W. Va., succeeding J. G. Hunter, who recently resigned to manage a new quarrying operation near Bluefield. C. G. Hammond, Jr., assistant trainmaster, Petersburg, Va., succeeds Mr. Maben.

**NORFOLK SOUTHERN.**—J. L. McGhee, assistant freight traffic manager, Richmond, Va., promoted to freight traffic manager—sales, Southern region, Richmond. M. N. Vienne, assistant freight traffic manager, New York, promoted to freight traffic manager—sales, Eastern region, New York.

John A. White, Jr., assistant engineer, Norfolk, Va., appointed construction engineer there.

**PENNSYLVANIA.**—Eugene C. Amey, of the Philadelphia public relations department, appointed manager of public relations, Lake region, Cleveland, succeeding Paul W. Van Camp (Railway Age, May 20, p. 15).

Richard E. Pinkham, assistant superintendent of transportation, Northern region, Buffalo, N. Y., appointed superintendent, TrucTrain (piggyback) service, Philadelphia.

**PIEDMONT & NORTHERN.**—W. C. Bridges appointed general western agent, Chicago. District freight agent position abolished.

**READING.**—A. C. Tosh, executive assistant, Philadelphia, retired May 31. Mr. Tosh was formerly vice-president and general manager of both the Jersey Central and the Central of Pennsylvania and was



Wirt P. Marks, Jr.  
RF&P



Stuart Shumate  
RF&P

general manager of the Reading during World War II.

**RICHMOND, FEDERICKSBURG & POTOMAC.**—Wirt P. Marks, Jr., general counsel, Richmond, Va., elected president and director, effective August 1, succeeding W. Thomas Rice, resigned to become president and director of the Atlantic Coast Line at Wilmington, N. C. (Railway Age, June 24, p. 7). Stuart Shumate, general superintendent, RF&P, Richmond, elected vice-president and general manager, effective July 1.

H. T. Rainey, Jr., superintendent car department, Richmond, appointed superintendent motive power and equipment.

Mr. Marks was born at Garysville, Va., November 4, 1893, and attended the University of Virginia (LL.B. 1917). He entered railroad service with the Southern in 1925 as assistant to division counsel in Virginia, joining the RF&P in 1945 as assistant general counsel and becoming general counsel in 1951.

**UNION PACIFIC.**—P. G. Beach, advertising manager, Los Angeles, transferred to Omaha, Neb., and is succeeded by H. J. Forbes.

William V. Layman appointed assistant traffic manager, Chicago. Louis G. Stahl, general freight and passenger agent, New York, named assistant traffic manager, Seattle, Wash., succeeding P. A. Aulenbacher, who retired June 30. Harry F. Brevoort appointed assistant traffic manager, New York. Harold G. Graupner and William James named general traffic agents at Chicago and Pittsburgh, respectively. William C. Collier appointed general agent, freight department, and W. H. Ahlgrim, Jr., named general agent, passenger department, Seattle. Darrell F. Alvord appointed general traffic agent, Boise, Idaho.

## OBITUARY

Warner Fuller, 55, vice-president and general counsel, Terminal Railroad Association of St. Louis, St. Louis, Mo., died June 11.

William P. Redmond, 86, retired district passenger agent of the Pennsylvania, died June 19 in Resurrection Hospital, Chicago.

Francis Henry Shepard, 82, pioneer in railroad electrification, died June 22 at Bennington (Vt.) Hospital. Mr. Shepard retired in 1932 as director of heavy traction, Westinghouse Electric & Manufacturing Company, but continued as a consulting engineer. Among projects supervised by Mr. Shepard while he was with Westinghouse was electrification of the New Haven and Grand Central Terminal. With Frank Sprague Mr. Shepard developed the first multiple unit control electrification system used in the New York area.

J. H. Hammond, superintendent, Fort Wayne—Chicago divisions, Nickel Plate, Fort Wayne, Ind., died June 17.



# Handy Reference to Railroad Associations

The following list gives names and addresses of secretaries and dates and places of next or regular meeting.

**AIR BRAKE ASSOCIATION.**—Lawrence Wilcox, Room 827, 80 E. Jackson Blvd., Chicago 4. Annual meeting, September 16-18, Hotel Sherman, Chicago.

**ALLIED RAILWAY SUPPLY ASSOCIATION.**—J. D. Ristine, Railway Exchange Bldg., 80 E. Jackson Blvd., Chicago 4. Annual meeting and exhibit, September 15-18, Hotel Sherman, Chicago.

**AMERICAN ASSOCIATION OF BAGGAGE TRAFFIC MANAGERS.**—W. B. Paul, Seaboard Air Line, Norfolk 10, Va.

**AMERICAN ASSOCIATION OF PASSENGER RATE MEN.**—R. L. Piacentini, 732 McCormick Blvd., Chicago 4. Annual meeting October 24-26, Hotel Paso del Norte, El Paso.

**AMERICAN ASSOCIATION OF PASSENGER TRAFFIC OFFICERS.**—B. D. Branch, Eastern Time Table Distributing Company, Liberty Street Terminal, New York 6. Annual meeting on steamship "Queen of Bermuda" sailing from New York October 4, returning October 11.

**AMERICAN ASSOCIATION OF RAILROAD SUPERINTENDENTS.**—Miss Elise La Chance, Room 928, 431 S. Dearborn St., Chicago 5.

**AMERICAN ASSOCIATION OF TRAVELING PASSENGER AGENTS.**—C. A. Melin, P. O. Box 5025 Cleveland 1.

**AMERICAN COUNCIL OF RAILROAD WOMEN.**—Martha Moore, St. Louis-San Francisco, 110 Frisco Bldg., 9th & Olive Sts., St. Louis 1. Annual meeting, October 28-30, Eden Roc Hotel, Miami Beach.

**AMERICAN INSTITUTE OF ELECTRICAL ENGINEERS.**—N. S. Hibshman, 33 W. 39th St., New York 18. Committee on Land Transportation.—P. G. Lessmann, Westinghouse Electric Corp., East Pittsburgh.

**AMERICAN RAILWAY BRIDGE AND BUILDING ASSOCIATION.**—Miss Elise La Chance, Room 928, 431 S. Dearborn St., Chicago 5. Annual meeting, September 23-25, Conrad Hilton Hotel, Chicago.

**AMERICAN RAILWAY CAR INSTITUTE.**—W. A. Rens, 19 E. 47th St., New York 17.

**AMERICAN RAILWAY DEVELOPMENT ASSOCIATION.**—J. W. Ewalt, Pennsylvania, 6 Penn Center Plaza, Philadelphia 4. Annual meeting, April 27-29, 1958, Cincinnati.

**AMERICAN RAILWAY ENGINEERING ASSOCIATION.**—Works in cooperation with the Association of American Railroads, Engineering Division.—Neal D. Howard, 59 E. Van Buren St., Chicago 5. Annual meeting, March 11-13, 1958, Hotel Sherman, Chicago.

**AMERICAN RAILWAY MAGAZINE EDITORS ASSOCIATION.**—J. J. Kolke, Santa Fe Magazine, Room 334, Railway Exchange, Chicago 4.

**AMERICAN SHORT LINE RAILROAD ASSOCIATION.**—C. E. Huntley, 2000 Massachusetts Ave., N.W., Washington 6, D. C. Annual meeting, September 30-October 2, Jung Hotel, New Orleans.

**AMERICAN SOCIETY FOR TESTING MATERIALS.**—R. J. Painter, 1916 Race St., Philadelphia 3. Committee Week February 9-15, 1958, Hotel Statler, St. Louis. Annual meeting, June 22-28, Hotel Statler, Boston.

**AMERICAN SOCIETY OF MECHANICAL ENGINEERS.**—C. E. Davies, 29 W. 39th St., New York 18.

**RAILROAD DIVISION.**—R. L. Wilson, American Brake Shoe Company, Mahwah, N. J.

**AMERICAN WOOD-PRESERVER'S ASSOCIATION.**—W. A. Penrose, 839 Seventeenth St., N.W., Washington 6, D. C.

**ASSOCIATED TRAFFIC CLUBS OF AMERICA.**—R. P. DeGroote, Luckenbach Steamship Co., Inc., 110 S. Dearborn St., Room 514, Chicago 3. Annual meeting, September 30-October 1, Adolphus Hotel, Dallas.

**ASSOCIATION OF AMERICAN RAILROAD DINING CAR OFFICERS.**—W. H. Berghegger, 2039 Randolph St., St. Louis 3. Annual meeting, October 8-10, Hotel Roanoke, Roanoke, Va.

**ASSOCIATION OF AMERICAN RAILROADS.**—George M. Campbell, Transportation Bldg., Washington 6, D. C.

**Operations and Maintenance Department.**—R. G. May, Vice-president, Transportation Bldg., Washington 6, D. C.

**Operating-Transportation Division.**—A. I. Ciliske, 59 E. Van Buren St., Chicago 5.

**Transportation Section.**—H. A. Eaton, 59 E. Van Buren St., Chicago 5.

**Operating Section.**—F. J. Parker, 59 E. Van Buren St., Chicago 5.

**Communications Section.**—A. H. Grothmann, 59 E. Van Buren St., Chicago 5. Annual meeting, May 13-15, 1958, Hotel Muehlebach, Kansas City, Mo.

**Fire Protection and Insurance Section.**—W. E. Todd, 59 E. Van Buren St., Chicago 5. Annual meeting, October 15-17, Sheraton Hotel, Chicago.

**Freight Loss and Damage Prevention Section.**—C. H. Ruhle, 59 E. Van Buren St., Chicago 5.

**Freight Station Section.**—W. E. Todd, 59 E. Van Buren St., Chicago 5.

**Medical and Surgical Section.**—F. J. Parker, 59 E. Van Buren St., Chicago 5.

**Protective Section.**—F. J. Parker, 59 E. Van Buren St., Chicago 5.

**Safety Section.**—F. J. Parker, 59 E. Van Buren St., Chicago 5.

**Electrical Section of the Engineering and Mechanical Divisions.**—C. C. Elber, 59 E. Van Buren St., Chicago 5.

**Engineering Division.**—E. G. Gehrke, 59 E. Van Buren St., Chicago 5.

**Construction and Maintenance Section.**—Neal D. Howard, 59 E. Van Buren St., Chicago 5. Annual

meeting, March 11-13 1958, Hotel Sherman, Chicago.

**Signal Section.**—R. H. C. Balliet, 59 E. Van Buren St., Chicago 5. Annual meeting, September 19-21, Conrad Hilton Hotel, Chicago.

**Mechanical Division.**—Fred Peronto, 59 E. Van Buren St., Chicago 5.

**Purchases and Stores Division.**—John L. Timanus, Transportation Bldg., Washington 6, D. C. Annual meeting, June 4-6, 1958, Palmer House, Chicago.

**Freight Claim Division.**—R. E. O'Donnell, 59 E. Van Buren St., Chicago 5.

**General Claims Division.**—Bruce H. Smith, 59 E. Van Buren St., Chicago 5.

**Car Service Division.**—Arthur H. Cass, Chairman, Transportation Bldg., Washington 6, D. C.

**Finance, Accounting, Taxation and Valuation Department.**—Arthur R. Seder, Vice-president, Transportation Bldg., Washington 6, D. C.

**Accounting Division.**—R. E. Keefe, Transportation Bldg., Washington 6, D. C.

**Treasury Division.**—R. E. Keefe, Transportation Bldg., Washington 6, D. C. Annual meeting, November 4-6, Arizona-Biltmore, Phoenix.

**ASSOCIATION OF INTERSTATE COMMERCE COMMISSION PRACTITIONERS.**—Miss Sarah F. McDonough, Executive Secretary, 2218 ICC Building, Washington 25, D. C.

**ASSOCIATION OF RAILROAD ADVERTISING MANAGERS.**—A. W. Eckstein, Illinois Central, 135 E. Eleventh Pl., Chicago 5.

**BRIDGE AND BUILDING SUPPLY ASSOCIATION.**—L. R. Gurley, Modern Railroads, 201 N. Wells St., Chicago 6.

**CANADIAN RAILWAY CLUB.**—W. J. Cadogan, Canadian National Railways, P. O. Box 162, Montreal 3, Quebec. Regular meetings, second Monday of each month, except June, July and August, Sheraton-Mount Royal Hotel, Montreal, Que.

**CAR DEPARTMENT ASSOCIATION OF ST. LOUIS.**—E. S. Walsh, 2606 Scott Ave., St. Louis 3. Regular meetings first Tuesday of each month except June, July and August, Hotel Claridge.

**CAR DEPARTMENT OFFICERS' ASSOCIATION.**—F. H. Stremmel, 6536 N. Oxford Ave., Chicago 31. Annual meeting, September 16-18, Hotel Sherman, Chicago.

**CAR FOREMAN'S ASSOCIATION OF OMAHA, COUNCIL BLUFFS AND SOUTH OMAHA INTERCHANGE.**—C. G. Poetzel, Chicago & North Western, 11th St. and Avenue J., Council Bluffs, Ia. Regular meetings, second Tuesday of each month, except July and August, Chieftain Hotel, Council Bluffs.

**CAR FOREMEN'S ASSOCIATION OF CHICAGO.**—R. C. Berglund, 8215 Drexel Ave., Chicago 19. Regular meetings, second Monday of each month except June, July and August, LaSalle Hotel.

**CENTRAL RAILWAY CLUB OF BUFFALO.**—J. A. Gorman, 1817 Hotel Statler, Buffalo 5. Regular meetings, second Thursday of each month except June, July and August, Hotel Statler.

**CHICAGO RAILROAD DIESEL CLUB.**—E. C. Fodick, 4226 W. Washington Blvd., Chicago 24. Regular meetings first Thursday after first Sunday of each month except July and August, Hotel Sherman, 7:30 p.m.

**CHICAGO RAILROADS CAR ACCOUNTING OFFICERS.**—Max Jauch (Chairman) Chicago & North Western, 4809 N. Ravenswood Ave., Chicago 40. Regular meetings last Wednesday of each month, except July and August, Midland Hotel, at 12:15 p.m.

**EASTERN ASSOCIATION OF CAR SERVICE OFFICERS.**—C. C. Robinson, Monon RR., Lafayette, Ind.

**EASTERN CAR FOREMAN'S ASSOCIATION.**—F. Frey, Central of New Jersey, Room 32, Jersey City Terminal, Jersey City 2. Regular meetings, second Friday of January, February, March, April, May, October and November, Railroad-Machinery Club, 30 Church St., New York.

**LOCOMOTIVE MAINTENANCE OFFICERS' ASSOCIATION.**—C. M. Lipscomb, 1721 Parker St., North Little Rock, Ark. Annual meeting September 16-18, Hotel Sherman, Chicago.

**MAINTENANCE OF WAY CLUB OF CHICAGO.**—S. Kosco, 135 E. Eleventh Place, Chicago 5. Regular meetings, October through April, Hamilton Hotel, Chicago.

**METROPOLITAN MAINTENANCE OF WAY CLUB.**—Gordon Rogers, Simmons-Boardman Publishing Corp., 30 Church St., New York 7. Meets in February, April, October and December, Railroad-Machinery Club, 30 Church St., New York. Next meeting, October 31.

**MILITARY RAILWAY SERVICE VETERANS.**—F. W. Okie, Bessemer and Lake Erie, P. O. Box 536, Pittsburgh 30. Annual reunion, September 13-15, Dinkler-Pizza Hotel, Atlanta.

**MISSISSIPPI VALLEY MAINTENANCE OF WAY CLUB.**—R. B. Davis, 1025 Frisco Building, 906 Olive St., St. Louis. Regular meetings second Monday of each month September through May, Coronado Hotel, St. Louis.

**NATIONAL ASSOCIATION OF RAILROAD AND UTILITIES COMMISSIONERS.**—R. Everett Kreeger, 5310 ICC Bldg., P. O. Box 684, Washington 4, D. C. Annual meeting, October 29-31, Peabody Hotel, Memphis.

**NATIONAL ASSOCIATION OF SHIPPERS' ADVISORY BOARDS.**—W. C. Cole, Georgia-Pacific Corp., Equibale Bldg., Portland 4, Ore. Annual meeting, October 8-10, Congress Hotel, Chicago.

**NATIONAL DEFENSE TRANSPORTATION ASSOCIATION.**—Lily M. Beauchamp, Suite 728, 1001 Connecticut Ave., Washington 6, D. C. Annual meeting, No-

vember 18-21, Hotel Shoreham, Washington, D. C.

**NATIONAL INDUSTRIAL TRAFFIC LEAGUE.**—L. J. Dorf, Suite 909, Sheraton Bldg., 711 14th St., N.W., Washington 5, D. C. Annual meeting, November 13-15, Hotel Morrison, Chicago.

**NATIONAL RAILWAY APPLIANCE ASSOCIATION.**—Kenneth Cavins, Fairmont Railway Motors, Inc., 310 S. Michigan Ave., Chicago 4. Lewis Thomas, Asst. Secy., 59 E. Van Buren St., Chicago 5. Exhibit, March 10-13, 1958, Coliseum, Chicago.

**NATIONAL SAFETY COUNCIL RAILROAD SECTION.**—L. C. Hahney, Elgin, Joliet & Eastern, Joliet, Ill. Annual meeting, October 22-24, Hotel Morrison, Chicago.

**NEW ENGLAND RAILROAD CLUB.**—William M. McCombs, 35 Lewis Wharf, Boston 10. Regular meetings, second Tuesday of each month, except May-September, incl., Hotel Vendome, Boston.

**NEW YORK RAILROAD CLUB.**—John Butty, 39 Church St., New York 7. Regular meetings, third Thursday of each month except June, July, August, September and December, Century Room, Commodore Hotel. Reception 6 p.m.; dinner, 7; meeting, 8:15.

**NORTHWEST CARMEN'S ASSOCIATION.**—N. J. Maglich, Minnesota Transfer Ry., 2071 University Ave., St. Paul 4, Minn. Regular meetings, first Monday of each month, except June, July, and August, Midway Club, 1931 University Ave., St. Paul.

**NORTHWEST LOCOMOTIVE ASSOCIATION.**—W. N. Cox, Northern Pacific, St. Paul 1, Minn. Regular meetings, fourth Tuesday of January, May and September, Hotel St. Paul, St. Paul; fourth Tuesday of March, June and November, Hotel Nicolett, Minneapolis.

**NORTHWEST MAINTENANCE OF WAY CLUB.**—L. C. Blanchard, Milwaukee Passenger Depot, Minneapolis 1. Regular meetings, fourth Thursday of each month, September through April, inclusive, except November and December which are third Thursday, Midway Club, 1931 University Ave., St. Paul.

**PACIFIC RAILWAY CLUB.**—S. E. Byler, 121 E. Sixth St., Los Angeles 14. Meetings in alternate months in San Francisco and Los Angeles. One meeting a year at Sacramento and at Roseville.

**RAILROAD PUBLIC RELATIONS ASSOCIATION.**—J. Don Paul, Association of American Railroads, Transportation Bldg., Washington 6, D. C.

**RAILWAY CLUB OF PITTSBURGH.**—G. E. Morrison, 2710 Koppers Bldg., Pittsburgh 19. Regular meetings held Thursday of each month, except June-September, incl., and December, Hotel Sherwyn. Dinner, 6:30 p.m.; meeting, 8.

**RAILWAY ELECTRIC SUPPLY MANUFACTURERS' ASSOCIATION.**—L. R. Oswald, Thos. A. Edison, Inc., 1500 S. Western Ave., Chicago 9.

**RAILWAY FUEL AND OPERATING OFFICERS ASSOCIATION.**—L. H. Peters, New York Central, Room 1213, 139 W. Van Buren St., Chicago 5. Annual meeting, September 16-18, Hotel Sherman, Chicago.

**RAILWAY PROGRESS INSTITUTE.**—T. A. Noonan, Jr., First National Bank Bldg., Chicago 3. Annual dinner, November 21, Conrad Hilton Hotel, Chicago.

**RAILWAY SUPPLY MANUFACTURERS' ASSOCIATION.**—A. W. Brown, 527 Lexington Ave., New York 17.

**RAILWAY SYSTEMS AND PROCEDURES ASSOCIATION.**—R. E. Huynh, Exec. Dir., Room 357, Union Station, Washington, D. C. Next meeting, October 8-10, Hotel Morrison, Chicago.

**RAILWAY TELEGRAPH AND TELEPHONE APPLIANCE ASSOCIATION.**—G. A. Nelson, 30 Church St., New York 7.

**RAILWAY TIE ASSOCIATION.**—Roy M. Edmonds, 1221 Locust St., St. Louis 3. Annual meeting, October 16-18, Jung Hotel, New Orleans.

**ROADMASTERS AND MAINTENANCE OF WAY ASSOCIATION.**—Miss Elise La Chance, Room 928, 431 S. Dearborn St., Chicago 5. Annual meeting, September 23-25, Conrad Hilton Hotel, Chicago.

**ST. LOUIS RAILROAD DIESEL CLUB.**—F. C. Whitlock, Terminal Railroad Association of St. Louis, 376 Union Station, St. Louis 3. Regular meetings, second Tuesday of each month, Hotel York. Dinner, 6:45 p.m.; meeting, 8.

**SOUTHEASTERN RAILWAY CLUB.**—H. W. Brewer, Seaboard Air Line, P. O. Box 6351, Jacksonville, Fla. Regular meetings, second Tuesday in February, April, June, August, October and December, Mayflower Hotel, Jacksonville.

**SOUTHERN AND SOUTHWESTERN RAILWAY CLUB.**—D. G. Sudderth, P. O. Box 1205, Atlanta 1. Regular meetings, third Thursday in January, March, May and November at Atlanta.

**SOUTHERN ASSOCIATION OF CAR SERVICE OFFICERS.**—F. I. Umbau, Southern Ry., Atlanta 3.

**TORONTO RAILWAY CLUB.**—H. W. Somerville, P. O. Box 8, Terminal "A," Toronto 1, Ont. Regular meetings, fourth Monday of each month except February, June, July, August and December, Royal York Hotel.

**TRACK SUPPLY ASSOCIATION.**—Lewis Thomas, Q and C Company, 59 E. Van Buren St., Chicago 5.

**WESTERN ASSOCIATION OF RAILWAY TAX COMMISSIONERS.**—V. L. Sides, Illinois Central, Room 305, 135 E. Eleventh Pl., Chicago 5. Semi-annual meeting, September 12, Montelone Hotel, New Orleans. Regular meetings, 12:15 p.m., first Wednesday of each month, except July and August, Traffic Club, Palmer House, Chicago.

**WESTERN RAILWAY CLUB.**—E. E. Thulin, Suite 339, Hotel Sherman, Chicago 1. Regular meetings held in February, March, April, May, October, November and December (Ladies Night).

## Current Publications

### PERIODICAL ARTICLES

**NOT ONLY THE TRUCKS ARE SWELLING TO KING SIZE.** *Business Week*, June 22, 1957, pp. 168-176. McGraw-Hill Publishing Company, 330 W. 42nd. st., New York 36. Limited supply of tear sheets available free.

Fast shifts in trucking industry make for fewer, bigger lines; bring first steps toward integrated truck-rail-sea-air system.

**CRUCIBLE PRODUCT AND WAREHOUSE CATALOG.** 232 pages, illustrations, tables. Crucible Steel Company of America, Engineering Service Department, Dept. RA, Box 1558, Pittsburgh 30. Free on request on company letterhead.

Designed for purchasing agents and steel users, the catalog describes over 700 products available from stock at Crucible warehouses throughout the country. The index lists 16 categories of special purpose steels, including high speed, tool, stainless, alloy and machinery, available in 16,000 grades and sizes. Over 20 estimating, conversions and weight tables as well as other information useful to steel users are also included.

### PAMPHLETS

**CRABAPPLE CITY, U.S.A.** Toledo, Peoria & Western Railroad, Peoria, Ill. Permission to reprint granted on request.

Uses "fantasy" technique to discuss ways in which small communities can improve themselves.

**A CHRONOLOGY OF AMERICAN RAILROADS.** 9 pages. Association of American Railroads, Transportation Bldg., Washington 6, D.C. Free.

Lists in chronological order famous railroad events from 1807 through February, 1956. Also contains tables showing growth of railway mileage by states and by years from 1830 through 1955.

**RAIL ODDITIES.** 44 pages, illustrations. Association of American Railroads, Transportation Bldg., Washington 6, D.C. Free.

A new edition of the booklet illustrating and describing odd and interesting facts about railroads.

**YOUR OPPORTUNITIES IN INDUSTRY AS A SKILLED CRAFTSMAN.** 32 pages, illustrations. National Association of Manufacturers, 2 E. 48th st., New York 17. Free.

The key role of the skilled craftsman as the "anchor man" on industry's technological team is stressed in this educational aid booklet, the first of two to be published by the NAM for junior and senior high school students, guidance counselors and libraries. It covers the scope, content and importance of apprentice training and cites the immediate values of vocational-industrial and industrial arts training in helping a youngster get a head start on skill development. It describes six craft specialties in detail: millwright, tool maker or die maker, maintenance electrician, all-round machinist, pattern maker and draftsman.

**THIRD-STRUCTURE TAXES: APPLICABILITY FOR KENTUCKY,** by Lewis C. Bell. 121 pages.

Bureau of Business Research, College of Commerce, University of Kentucky, Lexington.

Whether states should impose a special highway-user tax in addition to motor fuel and registration taxes has long plagued legislatures, administrators, and transporters. Granting that such a tax is to be employed, there are questions as to its character, application, and relationship to other revenue measures. This study analyzes one aspect of the highway-user structure—the so-called third-structure taxes. Mr. Bell discusses highway-user taxation theories and the theory of third-structure taxes, and then discusses each of four types of third-structure taxes in greater detail. These are gross receipt, ton-mile, gross weight, and weight-distance taxes.

### BOOKS

**PRINCIPLES OF TRANSPORTATION,** by Frank H. Mossman and Newton Morton. 510 pages, figures, tables. Ronald Press Company, 15 E. 26th st., New York 10. \$6.50.

The purpose of the authors is to present a clear and detailed description of basic principles of transportation, and to illustrate practices involved in carrier operation, management, and regulation. This is one of the first attempts in a textbook to combine transportation economics with transportation administration. In Part I the reader is introduced to the functions performed by transportation, and the basic economics of the subject are presented. Part II covers development and regulation of transportation; Part III, the rate structure; and Part IV, transportation administration. Selected carrier problems are discussed in Part V. These problems are: unbalanced motor carrier movement and marginal pricing, the role of the buyer in transportation, training in transportation, inconsistency of regulation of interstate carriers under the Interstate Commerce Act, and piggyback operations. Financial responsibility for highway construction and national transportation policy are discussed in Part VI.

**PROCEEDINGS OF THE ASSOCIATION OF AMERICAN RAILROADS, MECHANICAL DIVISION, 1956.** 494 pages, charts, drawings. Association of American Railroads, Mechanical Division, 59 E. Van Buren st., Chicago 5. \$9.

The proceedings of the annual meeting held in Chicago, June 26-28, 1956, contain reports of committees and discussion at the meeting and recommendations of committees submitted to letter ballot of the members. While the price of the proceedings is \$9.00 per copy to members and non-members, railroad members of the AAR will receive the same number of free copies as in previous years.

**AMERICAN COMMODITY FLOW; A GEOGRAPHICAL INTERPRETATION OF RAIL AND WATER TRAFFIC BASED ON PRINCIPLES OF SPATIAL INTERCHANGE,** by Edward L. Ullman. 215 pages, maps. University of Washington Press, Seattle 5. \$4.

What is the pattern of commodity flow in the American economy? Where do the

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commodities go, what routes do they follow, and what principles govern their movement? Dr. Ullman addresses his study to these and related questions by means of maps and analyses based on newly available data. The result is a representation of the geography of America as a geography of linkages and connections to be set alongside the well-known, static geography of production and consumption regions, or of patterns of terrain and climate.

Among the 164 maps are those showing freight traffic flow on United States and Canadian railroads, as well as in United States inland waterway and domestic and foreign ocean trade. Origin and destination maps show rail commodity flow for 20 representative states and water-borne trade for United States coastal regions. There are also maps of the American industrial belt and rail centers.

Dr. Ullman proposes a system of spatial interaction, and discusses the three primary factors: complementarity, a function of areal differentiation promoting spatial interaction; intervening complementarity (or "opportunities") between two regions or places; and transferability (distance) measured in real terms, including cost and time of transport and effect of improvement in facilities.

#### FILMS

WASHINGTON—SHRINE OF AMERICAN PATRIOTISM. Color, 25 min. Produced by the Baltimore & Ohio. Available free of charge from Association Films, Inc., 347 Madison ave., New York 17.

An earlier version of this film has been seen by thousands of school children throughout the United States, and the railroad felt that, since Washington has undergone so many changes in recent years, a new and fresh production of the film was in order. The new picture takes a group of average high school youngsters on a "grand tour" of Washington, and the camera focuses on such historic documents as the Declaration of Independence, the Constitution and the Bill of Rights. Practically every historic spot in the city is visited and there is even a trip down the Potomac to Washington's home at Mt. Vernon, not to mention a look behind the scenes at FBI headquarters.

#### ANNUALS

YEARBOOK OF RAILROAD INFORMATION, 1957 Edition. 103 pages. Eastern Railroad Presidents Conference, 143 Liberty st., New York 6. Free.

TRANSIT FACT BOOK, 1956 Edition, 15 pages. American Transit Association, 292 Madison ave., New York 17. Free.

INTERNATIONAL RAILWAY STATISTICS, YEAR 1955. 167 pages. General Secretariat, International Union of Railways, 10, Rue de Prony, Paris XVII, France.

AIR TRANSPORT FACTS AND FIGURES, 18th Edition, 1957. 28 pages. Air Transport Association of America, 1107 Sixteenth st., N.W., Washington, D.C. Free.

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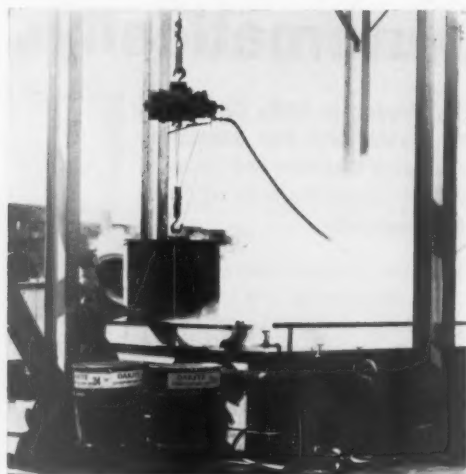
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## Supply Trade

**Walter H. Sieger** has been elected president of **Revere Corporation of America**, subsidiary of **Neptune Meter Company**, effective June 1. Mr. Sieger has been sales manager of the parent company since 1954.

**Griffin Wheel Company** has started regular manufacture of E.Q.S. steel wheels for railway freight cars at Colton, Cal. The plant is Griffin's third to produce such wheels.

**Newton H. Willis**, manager of **Waukesha Motor Company's** Railway Division, has been named a vice-president of the company.

**Harold M. Cragg**, specifications engineer, has been named St. Paul district manager of the Industrial Division, **Gould-National Batteries, Inc.**

**Corrulux Division of L-O-F Glass Fibers Company** has appointed two new distributors—**Capitol Glass Company**, Springfield, Ohio, and **Wholesale Materials Company**, Hattiesburg, Miss.

**Eugene Caldwell**, formerly vice-president and general manager of **Hyster Company**, has been elected president of **Baker-Raulang Company**.

General offices of **Gillis & Company**, producer of railroad ties, have been moved from 29 East Madison street, Chicago, to 134 Breckenridge Lane, Louisville, Ky.

**Crucible Steel Company of America** on May 16 opened a new specialty steel warehouse at 8610 Page blvd., St. Louis. The new facility has 33,600 sq ft of warehouse space with a sales office attached, and replaces the former warehouse at 1021 Chouteau ave. **J. J. Wycall** is the new branch manager, succeeding **K. C. Kelly**, now southern regional sales manager. On June 3 a new sales office and warehouse building was opened at 3400 Malone drive, Atlanta.

**Robert J. Whalen** has been appointed sales manager of the Rail Appliances Division, **True Temper Corporation**, at Cleveland, succeeding **Frank J. Reagan**, retired.

The New York office of the **American Brake Shoe Company** has been moved from 230 Park avenue to 530 Fifth avenue.

**Fairbanks, Morse & Co.** has announced sale of its reciprocating steam and power pump line to **Novo Pump & Engine Co.**, Lansing, Mich. The sale included inventory, dies, patterns and manufacturing rights to the line.

**Thomas H. McKoy** has been appointed Pittsburgh area salesman for **Standard Steel Works Division of Baldwin-Lima-Hamilton Corporation**.



Newton H. Willis



Robert J. Whalen



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**COMMERCIAL METALS COMPANY**  
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**HOUSTON 21, TEXAS**

## Railroads Seek Indemnity—Not Subsidy

Railroads providing red-ink services (e.g., commuter trains)—which they can neither charge for adequately, nor discontinue—are confronted with a dilemma, a problem to which there is no wholly satisfactory answer, but one to which some answer has to be given, anyhow.

### All Railroads Are Involved

It is not just the problem of the railroads directly affected, but that of the entire industry. Because, whenever any important part of the railroad industry has its strength syphoned off by parasitic operations, that condition is reflected in the kind of service provided for interline business, not just that local to the railroad which is victimized.

If local governments are asked to contribute enough to the cost of such red-ink service to wipe out the deficit, would that be "subsidizing the railroads"? This, also, is a question important to all railroads—and not just to those directly concerned. The good name of the railroads as an unsubsidized business is at stake. Railroads certainly should not accept the "subsidy" label for community participation in the expense of such service. Because, what the railroads are actually trying to do, is *not to get subsidies from communities, but rather to eliminate subsidies to communities*, now being paid by railroad owners and profitable customers.

**Suppose government comes along and takes your property away from you—to build a highway or public building on it—is the compensation it pays to you a subsidy? No. It is an indemnity—remuneration for damage or injury.**

You would prefer to keep your property and not get the government payment. And the railroads operating these red-ink trains would also prefer to pull them off, if permitted. It is only (1) where higher charges by a railroad do not provide the answer, and (2) where abandonment is not possible, either, that the question arises of a community contribution to bridge the gap between revenue and expense.

The dictionary definition of subsidy—a "grant of funds or property from government to a private person or company . . . to assist in the establishment or support of an enterprise deemed advantageous to the public"—is of no help in getting an understanding of this situation. It is useless because it does not distinguish between voluntary and involuntary services by the private interests that receive government payments. The distinction is of vital significance. The dictionary definition also does not embrace, as in accuracy it should, payments which may be exacted from private individuals for the benefit of others.

This situation is wholly different from the usual one of government subsidies to private business. In the ordinary meaning of the term, a subsidy is a government contribution to a business for providing a commodity or service it wants to provide—and the private business is looking for a profit, not just a protection against loss. In the case of the subsidized inland waterways, the government does not look at the books of each waterway carrier and give it just enough to keep it from "going into the red" on a particular route. Instead, it provides the improved waterways free of charges for all comers—and if the business is hugely profitable to the operators, they get the subsidy just the same. If they don't find particular services profitable, they can abandon them—unlike railroads with their commuter trains.

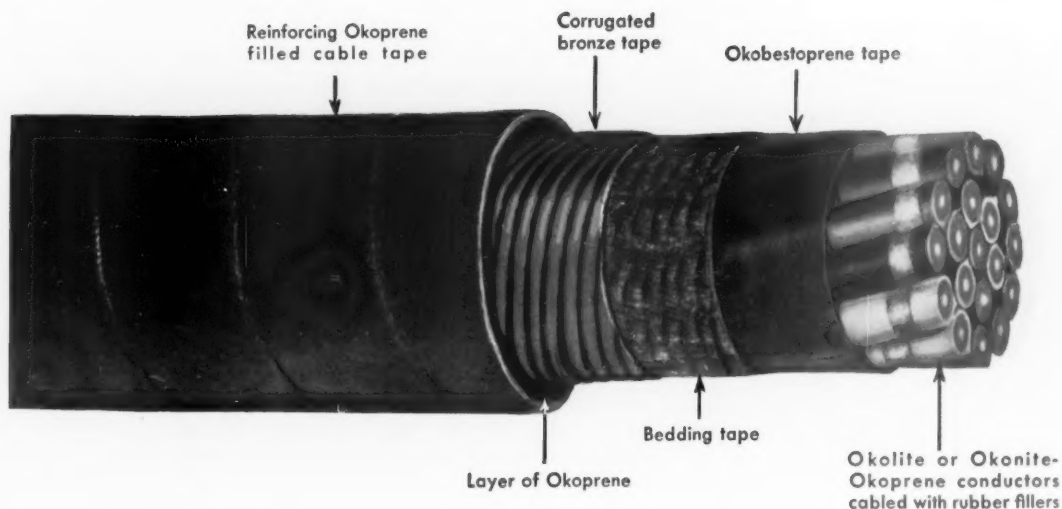
If the railroads get the "subsidized" label applied to them—simply because they seek to transfer the deficits of commuter service from their owners and shippers (who derive no benefit from the service) to the communities (which do benefit)—then a great injustice will have been done to the railroads. Theirs will be the unfortunate plight of the faithful husband whose jealous wife charges him with infidelity—so he "has the name but not the game."

The railroads have got to get out of their old way of doing business—like the old-time dry goods store which "made up the losses on the overalls from profits on the silk." Because, nowadays, the silk business has been taken over by the competition—and *somebody* has got to pay the cost of the overalls, or they can't be handled any more.

### The Last Bastion of Capitalism

The railroads are practically the only large industry in the country which has not been "soft" to the trend toward subsidization and semi-socialization. And they do not compromise their principles when they try honestly and forthrightly to take the burden of their unrecompensed services to communities off the backs of their stockholders and shippers—and to put the cost where the benefit lies. They should not permit the use of the term "subsidy" to go unchallenged, if it is applied to this situation.

**Whatever the technicalities of the law may be, the fact is that when government forces a railroad to provide a service at charges which do not defray costs, that railroad is being deprived of its property by force. And compensation by government for property it takes coercively is not a subsidy—economically, morally, or in common sense. It is, instead, an indemnity; and cannot accurately be labeled otherwise.**



## How CM-OT strengthens and protects Okonite Railroad cables

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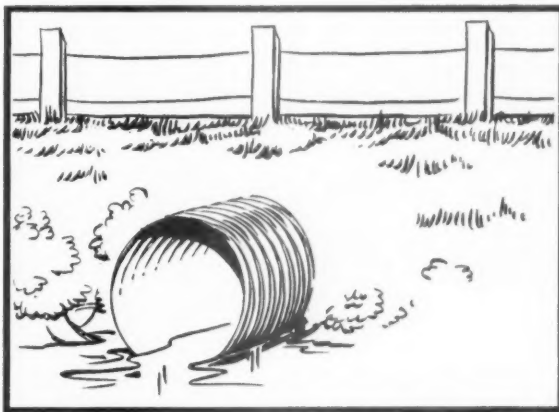
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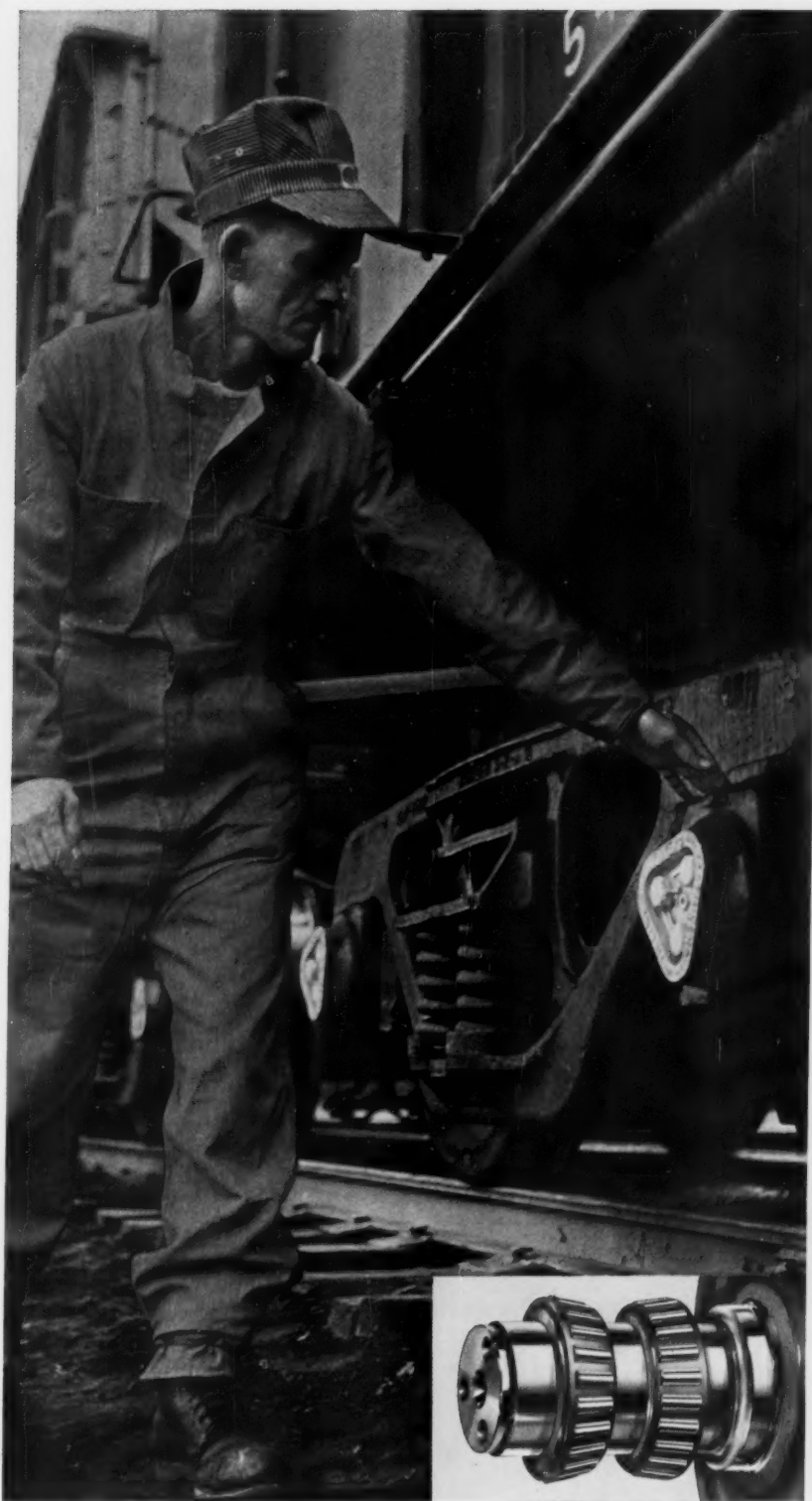
**T**he picture above shows a man with a tough job. He and three others have to inspect every friction bearing before this train can pull out of the terminal. They stop at every wheel, lift the journal box lid, poke around inside to make sure everything's in place, add oil. It takes time and costs money.

Picture at right shows what the railroads are doing about this. They're switching to "Roller Freight"—cars on Timken® tapered roller bearings. Now the inspector just touches journal assemblies for temperature as he walks by. Nothing to open, nothing to poke. And Timken bearings need lubricating only once in three years.

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